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P1618P2C2.txt

Patent Docket Preview

Sequence Listing

<110> Chen, Jian  
Goddard, Audrey  
Gurney, Austin L.  
Hillan, Kenneth  
Pennica, Diane  
Wood, William I.  
Yuan, Jean

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&lt;211&gt; 205

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 <212> PRT  
 <213> Homo Sapien

<400> 28

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Ser Lys Leu Leu Ala Cys Pro Ser Val Cys Arg Cys Asp Arg Asn
          35           40           45
Phe Val Tyr Cys Asn Glu Arg Ser Leu Thr Ser Val Pro Leu Gly
          50           55           60
Ile Pro Glu Gly Val Thr Val Leu Tyr Leu His Asn Asn Gln Ile
          65           70           75
Asn Asn Ala Gly Phe Pro Ala Glu Leu His Asn Val Gln Ser Val
          80           85           90
His Thr Val Tyr Leu Tyr Gly Asn Gln Leu Asp Glu Phe Pro Met
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Asn Leu Pro Lys Asn Val Arg Val Leu His Leu Gln Glu Asn Asn
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Glu Glu Leu His Leu Asp Asp Asn Ser Ile Ser Thr Val Gly Val
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Leu Ser Lys Asn His Leu Ser Ser Val Pro Val Gly Leu Pro Val
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Asp Leu Gln Glu Leu Arg Val Asp Glu Asn Arg Ile Ala Val Ile
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Ser Asp Met Ala Phe Gln Asn Leu Thr Ser Leu Glu Arg Leu Ile
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Val Asp Gly Asn Leu Leu Thr Asn Lys Gly Ile Ala Glu Gly Thr
          215          220          225
Phe Ser His Leu Thr Lys Leu Lys Glu Phe Ser Ile Val Arg Asn
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P1618P2C2.txt

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 350 355 360  
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 380 385 390  
 Pro Ser Arg Ser Tyr Thr Pro Pro Thr Pro Thr Thr Ser Lys Leu  
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 410 415 420  
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 425 430 435  
 Ser Ile Gln Val Ser Trp Leu Ser Leu Phe Thr Val Met Ala Tyr  
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 Lys Leu Thr Trp Val Lys Met Gly His Ser Leu Val Gly Gly Ile  
 455 460 465  
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 485 490 495  
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 Val Val Leu Leu Ser Val Phe Cys Trp His Met His Lys Lys Gly  
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 Asp Asp Tyr Cys Glu Ala Gly Thr Lys Lys Asp Asn Ser Ile Leu  
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P1618P2C2.txt

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Ser	Ile	Ser	Arg	Gly	Arg	His	Ala	Arg	Thr	His	Pro	Gln	Thr	Ala	35	40	45	
Leu	Leu	Glu	Ser	Ser	Cys	Glu	Asn	Lys	Arg	Ala	Asp	Leu	Val	Phe	50	55	60	
Ile	Ile	Asp	Ser	Ser	Arg	Ser	Val	Asn	Thr	His	Asp	Tyr	Ala	Lys	65	70	75	
Val	Lys	Glu	Phe	Ile	Val	Asp	Ile	Leu	Gln	Phe	Leu	Asp	Ile	Gly	80	85	90	
Pro	Asp	Val	Thr	Arg	Val	Gly	Leu	Leu	Gln	Tyr	Gly	Ser	Thr	Val	95	100	105	
Lys	Asn	Glu	Phe	Ser	Leu	Lys	Thr	Phe	Lys	Arg	Lys	Ser	Glu	Val	110	115	120	
Glu	Arg	Ala	Val	Lys	Arg	Met	Arg	His	Leu	Ser	Thr	Gly	Thr	Met	125	130	135	
Thr	Gly	Leu	Ala	Ile	Gln	Tyr	Ala	Leu	Asn	Ile	Ala	Phe	Ser	Glu	140	145	150	
Ala	Glu	Gly	Ala	Arg	Pro	Leu	Arg	Glu	Asn	Val	Pro	Arg	Val	Ile	155	160	165	
Met	Ile	Val	Thr	Asp	Gly	Arg	Pro	Gln	Asp	Ser	Val	Ala	Glu	Val	170	175	180	
Ala	Ala	Lys	Ala	Arg	Asp	Thr	Gly	Ile	Leu	Ile	Phe	Ala	Ile	Gly	185	190	195	
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P1618P2C2.txt

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260 265 270

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275 280 285

Glu Asp His Asn Cys Glu Gln Leu Cys Val Asn Val Pro Gly Ser  
290 295 300

Phe Val Cys Gln Cys Tyr Ser Gly Tyr Ala Leu Ala Glu Asp Gly  
305 310 315

Lys Arg Cys Val Ala Val Asp Tyr Cys Ala Ser Glu Asn His Gly  
320 325 330

Cys Glu His Glu Cys Val Asn Ala Asp Gly Ser Tyr Leu Cys Gln  
335 340 345

Cys His Glu Gly Phe Ala Leu Asn Pro Asp Glu Lys Thr Cys Thr  
350 355 360

Arg Ile Asn Tyr Cys Ala Leu Asn Lys Pro Gly Cys Glu His Glu  
365 370 375

Cys Val Asn Met Glu Glu Ser Tyr Tyr Cys Arg Cys His Arg Gly  
380 385 390

Tyr Thr Leu Asp Pro Asn Gly Lys Thr Cys Ser Arg Val Asp His  
395 400 405

Cys Ala Gln Gln Asp His Gly Cys Glu Gln Leu Cys Leu Asn Thr  
410 415 420

Glu Asp Ser Phe Val Cys Gln Cys Ser Glu Gly Phe Leu Ile Asn  
425 430 435

Glu Asp Leu Lys Thr Cys Ser Arg Val Asp Tyr Cys Leu Leu Ser  
440 445 450

Asp His Gly Cys Glu Tyr Ser Cys Val Asn Met Asp Arg Ser Phe  
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Ala Cys Gln Cys Pro Glu Gly His Val Leu Arg Ser Asp Gly Lys  
470 475 480

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Thr Cys Ala Lys Leu Asp Ser Cys Ala Leu Gly Asp His Gly Cys  
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Glu His Ser Cys Val Ser Ser Glu Asp Ser Phe Val Cys Gln Cys  
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Phe Glu Gly Tyr Ile Leu Arg Glu Asp Gly Lys Thr Cys Arg Arg  
515 520 525

Lys Asp Val Cys Gln Ala Ile Asp His Gly Cys Glu His Ile Cys  
530 535 540

P1618P2C2.txt

Val Asn Ser Asp Asp Ser Tyr Thr Cys Glu Cys Leu Glu Gly Phe  
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Arg Leu Ala Glu Asp Gly Lys Arg Cys Arg Arg Lys Asp Val Cys  
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Lys Ser Thr His His Gly Cys Glu His Ile Cys Val Asn Asn Gly  
575 580 585

Asn Ser Tyr Ile Cys Lys Cys Ser Glu Gly Phe Val Leu Ala Glu  
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Asp Gly Arg Arg Cys Lys Lys Cys Thr Glu Gly Pro Ile Asp Leu  
605 610 615

Val Phe Val Ile Asp Gly Ser Lys Ser Leu Gly Glu Glu Asn Phe  
620 625 630

Glu Val Val Lys Gln Phe Val Thr Gly Ile Ile Asp Ser Leu Thr  
635 640 645

Ile Ser Pro Lys Ala Ala Arg Val Gly Leu Leu Gln Tyr Ser Thr  
650 655 660

Gln Val His Thr Glu Phe Thr Leu Arg Asn Phe Asn Ser Ala Lys  
665 670 675

Asp Met Lys Lys Ala Val Ala His Met Lys Tyr Met Gly Lys Gly  
680 685 690

Ser Met Thr Gly Leu Ala Leu Lys His Met Phe Glu Arg Ser Phe  
695 700 705

Thr Gln Gly Glu Gly Ala Arg Pro Leu Ser Thr Arg Val Pro Arg  
710 715 720

Ala Ala Ile Val Phe Thr Asp Gly Arg Ala Gln Asp Asp Val Ser  
725 730 735

Glu Trp Ala Ser Lys Ala Lys Ala Asn Gly Ile Thr Met Tyr Ala  
740 745 750

Val Gly Val Gly Lys Ala Ile Glu Glu Glu Leu Gln Glu Ile Ala  
755 760 765

Ser Glu Pro Thr Asn Lys His Leu Phe Tyr Ala Glu Asp Phe Ser  
770 775 780

Thr Met Asp Glu Ile Ser Glu Lys Leu Lys Lys Gly Ile Cys Glu  
785 790 795

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Ala Leu Glu Asp Ser Asp Gly Arg Gln Asp Ser Pro Ala Gly Glu  
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Leu Pro Lys Thr Val Gln Gln Pro Thr Glu Ser Glu Pro Val Thr  
815 820 825

Ile Asn Ile Gln Asp Leu Leu Ser Cys Ser Asn Phe Ala Val Gln  
830 835 840

His Arg Tyr Leu Phe Glu Glu Asp Asn Leu Leu Arg Ser Thr Gln  
845 850 855

Lys Leu Ser His Ser Thr Lys Pro Ser Gly Ser Pro Leu Glu Glu  
860 865 870

Lys His Asp Gln Cys Lys Cys Glu Asn Leu Ile Met Phe Gln Asn  
875 880 885

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<212> DNA

<213> Homo Sapien

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gactccgtcc cggccagggg gggccatgat ttccctcccg gggcccctgg 150

tgaccaactt gctgcggttt ttgttcctgg ggctgagtgc cctcgcgccc 200

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ggtggaggga ggggaagtgg tgcttcagc gtggtacacc ttgcacgggg 300

P1618P2C2.txt

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<400> 39

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Leu Gln Leu His Leu Pro Ala Asn Arg Leu Gln Ala Val Glu Gly
           35           40           45
Gly Glu Val Val Leu Pro Ala Trp Tyr Thr Leu His Gly Glu Val
           50           55           60
Ser Ser Ser Gln Pro Trp Glu Val Pro Phe Val Met Trp Phe Phe
           65           70           75
Lys Gln Lys Glu Lys Glu Asp Gln Val Leu Ser Tyr Ile Asn Gly
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Ser Gly Pro Tyr Ser Cys Ser Val Asn Val Gln Asp Lys Gln Gly
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Lys Ser Arg Gly His Ser Ile Lys Thr Leu Glu Leu Asn Val Leu
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          155          160          165
Val Gly Ala Asn Val Thr Leu Ser Cys Gln Ser Pro Arg Ser Lys
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Pro Ala Val Gln Tyr Gln Trp Asp Arg Gln Leu Pro Ser Phe Gln
          185          190          195
Thr Phe Phe Ala Pro Ala Leu Asp Val Ile Arg Gly Ser Leu Ser
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Leu Thr Asn Leu Ser Ser Ser Met Ala Gly Val Tyr Val Cys Lys
          215          220          225
Ala His Asn Glu Val Gly Thr Ala Gln Cys Asn Val Thr Leu Glu
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Val Ser Thr Gly Pro Gly Ala Ala Val Val Ala Gly Ala Val Val
          245          250          255
Gly Thr Leu Val Gly Leu Gly Leu Leu Ala Gly Leu Val Leu Leu
          260          265          270
Tyr His Arg Arg Gly Lys Ala Leu Glu Glu Pro Ala Asn Asp Ile
          275          280          285
Lys Glu Asp Ala Ile Ala Pro Arg Thr Leu Pro Trp Pro Lys Ser

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290

295

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Arg Leu Pro Thr Thr Asp Gly Ala His Pro Gln Pro Ile Ser Pro  
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&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 41

attgtgggcc ttgcagacat agac 24

&lt;210&gt; 42

&lt;211&gt; 50

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

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&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 42

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&lt;210&gt; 43

&lt;211&gt; 18

&lt;212&gt; DNA

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&lt;223&gt; Synthetic Oligonucleotide Probe

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 35 40 45  
 Met Gly Phe Ser Gly Asn Gly Val Thr Ile Cys Glu Asp Asp Asn  
 50 55 60  
 Glu Cys Gly Asn Leu Thr Gln Ser Cys Gly Glu Asn Ala Asn Cys  
 65 70 75  
 Thr Asn Thr Glu Gly Ser Tyr Tyr Cys Met Cys Val Pro Gly Phe  
 80 85 90

Arg Ser Ser Ser Asn Gln Asp Arg Phe Ile Thr Asn Asp Gly Thr  
 95 100 105  
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 125 130 135  
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 305 310 315  
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 320 325 330  
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 380 385 390  
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 395 400 405

Leu Thr His Phe Ala Ile Leu Met Ser Ser Gly Pro Ser Ile Gly  
 410 415 420  
 Ile Lys Asp Tyr Asn Ile Leu Thr Arg Ile Thr Gln Leu Gly Ile  
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 470 475 480  
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 Glu Gly Ile His Leu Tyr Leu Ile Val Val Gly Val Ile Tyr Asn  
 515 520 525  
 Lys Gly Phe Leu His Lys Asn Phe Tyr Ile Phe Gly Tyr Leu Ser  
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 His Leu Tyr Thr Ser Gly Pro His Gly Leu Ser Ser Cys Phe Leu  
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 65 70 75  
 Ala His Ser Leu Leu Glu Ile Lys Ala Val Ala Leu Arg Thr Val  
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 Ala Ile Lys Gly Val His Ser Val Arg Tyr Leu Cys Met Gly Ala  
 95 100 105  
 Asp Gly Lys Met Gln Gly Leu Leu Gln Tyr Ser Glu Glu Asp Cys  
 110 115 120  
 Ala Phe Glu Glu Glu Ile Arg Pro Asp Gly Tyr Asn Val Tyr Arg  
 125 130 135  
 Ser Glu Lys His Arg Leu Pro Val Ser Leu Ser Ser Ala Lys Gln  
 140 145 150  
 Arg Gln Leu Tyr Lys Asn Arg Gly Phe Leu Pro Leu Ser His Phe  
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<212> DNA

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P1618P2C2.txt

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 Asp Phe Asn Ile Arg Ile Lys Asn Val Thr Arg Ser Asp Ala Gly  
 95 100 105  
 Lys Tyr Arg Cys Glu Val Ser Ala Pro Ser Glu Gln Gly Gln Asn  
 110 115 120  
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P1618P2C2.txt

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				185					190					195	
Thr	Gly	Thr	Leu	Gln	Phe	Asn	Thr	Val	Ser	Lys	Leu	Asp	Thr	Gly	
				200					205					210	
Glu	Tyr	Ser	Cys	Glu	Ala	Arg	Asn	Ser	Val	Gly	Tyr	Arg	Arg	Cys	
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Pro	Gly	Lys	Arg	Met	Gln	Val	Asp	Asp	Leu	Asn	Ile	Ser	Gly	Ile	
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Leu	Gly	Val	Cys	Tyr	Ala	Gln	Arg	Lys	Gly	Tyr	Phe	Ser	Lys	Glu	
				260					265					270	
Thr	Ser	Phe	Gln	Lys	Ser	Asn	Ser	Ser	Ser	Lys	Ala	Thr	Thr	Met	
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Ser	Glu	Asn	Val	Gln	Trp	Leu	Thr	Pro	Val	Ile	Pro	Ala	Leu	Trp	
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<211> 23

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<223> Synthetic Oligonucleotide Probe

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<210> 67

<211> 48

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Oligonucleotide Probe

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P1618P2C2.txt

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<211> 708

<212> PRT

<213> Homo Sapien

<400> 69

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			20						25					30

Arg	Leu	Cys	Thr	Cys	Glu	Ile	Arg	Pro	Trp	Phe	Thr	Pro	Arg	Ser
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35

40

45

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95 100 105

Ser Val Thr Asn Ile Asn Val Lys Lys Met Pro Gln Leu Leu Ser  
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Val Tyr Leu Glu Glu Asn Lys Leu Thr Glu Leu Pro Glu Lys Cys  
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Leu Leu Arg Leu His Leu Asn Ser Asn Arg Leu Gln Met Ile Asn  
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Ser Lys Trp Phe Asp Ala Leu Pro Asn Leu Glu Ile Leu Met Ile  
185 190 195

Gly Glu Asn Pro Ile Ile Arg Ile Lys Asp Met Asn Phe Lys Pro  
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230 235 240

Ile Ser Phe Tyr Asp Asn Arg Leu Ile Lys Val Pro His Val Ala  
245 250 255

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Leu Lys Glu Leu Gly Ile Asn Asn Met Pro Glu Leu Ile Ser Ile  
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Asp Ser Leu Ala Val Asp Asn Leu Pro Asp Leu Arg Lys Ile Glu  
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Ala Thr Asn Asn Pro Arg Leu Ser Tyr Ile His Pro Asn Ala Phe  
320 325 330

Phe Arg Leu Pro Lys Leu Glu Ser Leu Met Leu Asn Ser Asn Ala  
335 340 345

Leu Ser Ala Leu Tyr His Gly Thr Ile Glu Ser Leu Pro Asn Leu  
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350

355

360

Lys Glu Ile Ser Ile His Ser Asn Pro Ile Arg Cys Asp Cys Val  
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665

P1618P2C2.txt

670

675

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<212> DNA

<213> Homo Sapien

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<400> 71

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Ala	Ser	Met	Cys	Pro	Lys	Gly	Cys	Leu	Cys	Ser	Ser	Ser	Gly	Gly	35	40	45	
Leu	Asn	Val	Thr	Cys	Ser	Asn	Ala	Asn	Leu	Lys	Glu	Ile	Pro	Arg	50	55	60	
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Asn	Leu	Pro	Lys	Lys	Thr	Thr	Asp	Tyr	Ala	Met	Leu	Val	Thr	Met	200	205	210	
Phe	Gly	Trp	Phe	Thr	Met	Val	Ile	Ser	Tyr	Val	Val	Tyr	Tyr	Val	215	220	225	
Arg	Gln	Asn	Gln	Glu	Asp	Ala	Arg	Arg	His	Leu	Glu	Tyr	Leu	Lys	230	235	240	
Ser	Leu	Pro	Ser	Arg	Gln	Lys	Lys	Ala	Asp	Glu	Pro	Asp	Asp	Ile				

Ser Thr Val Val

<210> 72  
<211> 2290  
<212> DNA  
<213> Homo Sapien

&lt;400&gt; 72

accgagccga gcggaccgaa ggcgcgcccc agatgcaggt gagcaagagg 50  
atgctggcgg ggggcgtgag gagcatgccc agccccctcc tggcctgctg 100  
gcagcccatc ctctgctgg tgctgggctc agtgctgtca ggctcggcca 150  
cgggctgccc gccccgctgc gagtgtccg cccaggaccg cgctgtgctg 200  
tgccaccgca agtgctttgt ggcagtcccc gagggcatcc ccaccgagac 250  
gcgcctgctg gacctaggca agaaccgcat caaaacgctc aaccaggacg 300  
agttcgccag cttcccgac ctggaggagc tggagctcaa cgagaacatc 350  
gtgagcgccg tggagcccgg cgccttcaac aacctcttca acctccggac 400  
gctgggtctc gcgagcaacc gcctgaagct catcccgcta ggcgtcttca 450  
ctggcctcag caacctgacc aagcaggaca tcagcgagaa caagatcggt 500  
atcctactgg actacatgtt tcaggacctg tacaacctca agtcactgga 550  
ggttggcgac aatgacctg tctacatctc tcaccgcgcc ttcagcggcc 600  
tcaacagcct ggagcagctg acgctggaga aatgcaacct gacctccatc 650  
cccaccgagg cgctgtccca cctgcacggc ctcatcgctc tgaggctccg 700  
gcacctcaac atcaatgcca tccgggacta ctccttcaag aggctgtacc 750  
gactcaaggt cttggagatc tccactggc cctacttga caccatgaca 800  
cccaactgcc tctacggcct caacctgacg tccctgtcca tcacacactg 850  
caatctgacc gctgtgccct acctggccgt ccgccaccta gtctatctcc 900  
gcttcctcaa ccttcctac aaccccatca gcaccattga gggctccatg 950  
ttgcatgagc tgctccggct gcaggagatc cagctggtgg gcgggcagct 1000  
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tcaatgtctc tggcaaccag ctgaccacac tggaggaatc agtcttccac 1100  
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accggcagca gccacgtgc gccacgccc agtttgtcca gggcaaggag 1250  
ttcaaggact tccctgatgt gctactgccc aactacttca cctgccgccg 1300

cgcccgcatc cgggaccgca agggcccagca ggtgtttgtg gacgagggcc 1350  
 acacggtgca gtttgtgtgc cgggccgatg gcgacccgcc gcccgccatc 1400  
 ctctggctct caccgccaaa gcacctggtc tcagccaaga gcaatgggcg 1450  
 gctcacagtc ttccctgatg gcacgctgga ggtgcgctac gcccggttac 1500  
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 accgacacgc ggcagagtca ataattcaat aaaaaagtta cgaactttct 2200  
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 taaaaagaga aaaaaactaa aaaaaaaaaa aaaaaaaaaa 2290

&lt;210&gt; 73

&lt;211&gt; 620

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 73

Met Gln Val Ser Lys Arg Met Leu Ala Gly Gly Val Arg Ser Met  
 1 5 10 15

Pro Ser Pro Leu Leu Ala Cys Trp Gln Pro Ile Leu Leu Leu Val  
 20 25 30

Leu Gly Ser Val Leu Ser Gly Ser Ala Thr Gly Cys Pro Pro Arg  
 35 40 45

Cys Glu Cys Ser Ala Gln Asp Arg Ala Val Leu Cys His Arg Lys  
 50 55 60

Cys Phe Val Ala Val Pro Glu Gly Ile Pro Thr Glu Thr Arg Leu  
 65 70 75

Leu Asp Leu Gly Lys Asn Arg Ile Lys Thr Leu Asn Gln Asp Glu  
 80 85 90

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Phe Ala Ser Phe Pro His Leu Glu Glu Leu Glu Leu Asn Glu Asn  
 95 100 105  
 Ile Val Ser Ala Val Glu Pro Gly Ala Phe Asn Asn Leu Phe Asn  
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 Leu Arg Thr Leu Gly Leu Arg Ser Asn Arg Leu Lys Leu Ile Pro  
 125 130 135  
 Leu Gly Val Phe Thr Gly Leu Ser Asn Leu Thr Lys Gln Asp Ile  
 140 145 150  
 Ser Glu Asn Lys Ile Val Ile Leu Leu Asp Tyr Met Phe Gln Asp  
 155 160 165  
 Leu Tyr Asn Leu Lys Ser Leu Glu Val Gly Asp Asn Asp Leu Val  
 170 175 180  
 Tyr Ile Ser His Arg Ala Phe Ser Gly Leu Asn Ser Leu Glu Gln  
 185 190 195  
 Leu Thr Leu Glu Lys Cys Asn Leu Thr Ser Ile Pro Thr Glu Ala  
 200 205 210  
 Leu Ser His Leu His Gly Leu Ile Val Leu Arg Leu Arg His Leu  
 215 220 225  
 Asn Ile Asn Ala Ile Arg Asp Tyr Ser Phe Lys Arg Leu Tyr Arg  
 230 235 240  
 Leu Lys Val Leu Glu Ile Ser His Trp Pro Tyr Leu Asp Thr Met  
 245 250 255  
 Thr Pro Asn Cys Leu Tyr Gly Leu Asn Leu Thr Ser Leu Ser Ile  
 260 265 270  
 Thr His Cys Asn Leu Thr Ala Val Pro Tyr Leu Ala Val Arg His  
 275 280 285  
 Leu Val Tyr Leu Arg Phe Leu Asn Leu Ser Tyr Asn Pro Ile Ser  
 290 295 300  
 Thr Ile Glu Gly Ser Met Leu His Glu Leu Leu Arg Leu Gln Glu  
 305 310 315  
 Ile Gln Leu Val Gly Gly Gln Leu Ala Val Val Glu Pro Tyr Ala  
 320 325 330  
 Phe Arg Gly Leu Asn Tyr Leu Arg Val Leu Asn Val Ser Gly Asn  
 335 340 345  
 Gln Leu Thr Thr Leu Glu Glu Ser Val Phe His Ser Val Gly Asn  
 350 355 360  
 Leu Glu Thr Leu Ile Leu Asp Ser Asn Pro Leu Ala Cys Asp Cys  
 365 370 375  
 Arg Leu Leu Trp Val Phe Arg Arg Arg Trp Arg Leu Asn Phe Asn  
 380 385 390  
 Arg Gln Gln Pro Thr Cys Ala Thr Pro Glu Phe Val Gln Gly Lys  
 395 400 405

Glu Phe Lys Asp Phe Pro Asp Val Leu Leu Pro Asn Tyr Phe Thr  
 410 415 420  
 Cys Arg Arg Ala Arg Ile Arg Asp Arg Lys Ala Gln Gln Val Phe  
 425 430 435  
 Val Asp Glu Gly His Thr Val Gln Phe Val Cys Arg Ala Asp Gly  
 440 445 450  
 Asp Pro Pro Pro Ala Ile Leu Trp Leu Ser Pro Arg Lys His Leu  
 455 460 465  
 Val Ser Ala Lys Ser Asn Gly Arg Leu Thr Val Phe Pro Asp Gly  
 470 475 480  
 Thr Leu Glu Val Arg Tyr Ala Gln Val Gln Asp Asn Gly Thr Tyr  
 485 490 495  
 Leu Cys Ile Ala Ala Asn Ala Gly Gly Asn Asp Ser Met Pro Ala  
 500 505 510  
 His Leu His Val Arg Ser Tyr Ser Pro Asp Trp Pro His Gln Pro  
 515 520 525  
 Asn Lys Thr Phe Ala Phe Ile Ser Asn Gln Pro Gly Glu Gly Glu  
 530 535 540  
 Ala Asn Ser Thr Arg Ala Thr Val Pro Phe Pro Phe Asp Ile Lys  
 545 550 555  
 Thr Leu Ile Ile Ala Thr Thr Met Gly Phe Ile Ser Phe Leu Gly  
 560 565 570  
 Val Val Leu Phe Cys Leu Val Leu Leu Phe Leu Trp Ser Arg Gly  
 575 580 585  
 Lys Gly Asn Thr Lys His Asn Ile Glu Ile Glu Tyr Val Pro Arg  
 590 595 600  
 Lys Ser Asp Ala Gly Ile Ser Ser Ala Asp Ala Pro Arg Lys Phe  
 605 610 615  
 Asn Met Lys Met Ile  
 620

<210> 74  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 74  
 tcacctggag cctttattgg cc 22

<210> 75  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 75

ataccagcta taaccaggct gcg 23

<210> 76

<211> 52

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 76

caacagtaag tggtttgatg ctcttccaaa tctagagatt ctgatgattg 50

gg 52

<210> 77

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 77

ccatgtgtct cctcctacaa ag 22

<210> 78

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 78

gggaatagat gtgatctgat tgg 23

<210> 79

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 79

cacctgtagc aatgcaaadc tcaaggaaat acctagagat cttcctcctg 50

<210> 80

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 80

agcaaccgcc tgaagctcat cc 22

<210> 81

<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 81  
aaggcgcggt gaaagatgta gacg 24

<210> 82  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 82  
gactacatgt ttcaggacct gtacaacctc aagtcactgg aggttgccga 50

<210> 83  
<211> 1685  
<212> DNA  
<213> Homo Sapien

<400> 83  
cccacgcgtc cgcacctcgg ccccgggctc cgaagcggct cgggggccc 50  
ctttcgggtca acatcgtagt ccacccccctc cccatcccca gccccgggg 100  
attcaggctc gccagcgcgc agccagggag ccggccggga agcgcgatgg 150  
gggccccagc cgcctcgtc ctgctcctgc tcctgctggt cgcctgctgc 200  
tgggcgcccc gcggggccaa cctctcccag gacgacagcc agccctggac 250  
atctgatgaa acagtgggtg ctggtggcac cgtggtgctc aagtgccaa 300  
tgaaagatca cgaggactca tccctgcaat ggtctaacc tgctcagcag 350  
actctctact ttggggagaa gagagccctt cgagataatc gaattcagct 400  
ggttacctct acgccccacg agctcagcat cagcatcagc aatgtggccc 450  
tggcagacga gggcgagtac acctgctcaa tcttcactat gcctgtgcga 500  
actgccaagt cctcgtcac tgtgctagga attccacaga agcccatcat 550  
cactggttat aaatcttcat tacgggaaaa agacacagcc accctaaact 600  
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taaaaccttc actgtcagca gctcgggtgac attccagggt acccgggagg 750  
atgatggggc gagcatcgtg tgctctgtga accatgaatc tctaaagga 800  
gctgacagat ccaccttca acgcattgaa gttttataca caccaactgc 850  
gatgattagg ccagaccctc cccatcctcg tgagggccag aagctgttgc 900



tacactgtga gggctgcggc aatccagttc cccagcagta cctatgggag 950  
aaggagggca gtgtgccacc cctgaagatg acccaggaga gtgccctgat 1000  
cttccctttc ctcaacaaga gtgacagtgg cacctacggc tgcacagcca 1050  
ccagcaacat gggcagctac aaggcctact acaccctcaa tgttaatgac 1100  
cccagtccgg tgcctcctc ctccagcacc taccacgcca tcatcggtgg 1150  
gatcgtggct ttattgtct tctgtgtgct catcatgctc atcttccttg 1200  
gccactactt gatccggcac aaaggaacct acctgacaca tgaggcaaaa 1250  
ggctccgacg atgtccaga cgcggacacg gccatcatca atgcagaagg 1300  
cgggcagtca ggaggggacg acaagaagga atatttcata tagaggcgcc 1350  
tgcccacttc ctgcgcccc caggggccct gtggggactg ctggggccgt 1400  
caccaaccg gacttgata gagcaaccgc agggccgccc ctcccgcttg 1450  
ctcccagcc caccacccc cctgtacaga atgtctgctt tgggtgcggt 1500  
tttgactcg gtttggaatg gggagggagg agggcggggg gaggggaggg 1550  
ttgccctcag ccctttccgt ggcttctctg catttggtt attattattt 1600  
ttgtaacaat cccaaatcaa atctgtctcc aggctggaga ggcaggagcc 1650  
ctggggtgag aaaagcaaaa aacaaacaaa aaaca 1685

&lt;210&gt; 84

&lt;211&gt; 398

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 84

Met Gly Ala Pro Ala Ala Ser Leu Leu Leu Leu Leu Phe  
1 5 10 15  
Ala Cys Cys Trp Ala Pro Gly Gly Ala Asn Leu Ser Gln Asp Asp  
20 25 30  
Ser Gln Pro Trp Thr Ser Asp Glu Thr Val Val Ala Gly Gly Thr  
35 40 45  
Val Val Leu Lys Cys Gln Val Lys Asp His Glu Asp Ser Ser Leu  
50 55 60  
Gln Trp Ser Asn Pro Ala Gln Gln Thr Leu Tyr Phe Gly Glu Lys  
65 70 75  
Arg Ala Leu Arg Asp Asn Arg Ile Gln Leu Val Thr Ser Thr Pro  
80 85 90  
His Glu Leu Ser Ile Ser Ile Ser Asn Val Ala Leu Ala Asp Glu  
95 100 105  
Gly Glu Tyr Thr Cys Ser Ile Phe Thr Met Pro Val Arg Thr Ala  
110 115 120  
Lys Ser Leu Val Thr Val Leu Gly Ile Pro Gln Lys Pro Ile Ile

125

130

135

Thr Gly Tyr Lys Ser Ser Leu Arg Glu Lys Asp Thr Ala Thr Leu  
 140 145 150  
 Asn Cys Gln Ser Ser Gly Ser Lys Pro Ala Ala Arg Leu Thr Trp  
 155 160 165  
 Arg Lys Gly Asp Gln Glu Leu His Gly Glu Pro Thr Arg Ile Gln  
 170 175 180  
 Glu Asp Pro Asn Gly Lys Thr Phe Thr Val Ser Ser Ser Val Thr  
 185 190 195  
 Phe Gln Val Thr Arg Glu Asp Asp Gly Ala Ser Ile Val Cys Ser  
 200 205 210  
 Val Asn His Glu Ser Leu Lys Gly Ala Asp Arg Ser Thr Ser Gln  
 215 220 225  
 Arg Ile Glu Val Leu Tyr Thr Pro Thr Ala Met Ile Arg Pro Asp  
 230 235 240  
 Pro Pro His Pro Arg Glu Gly Gln Lys Leu Leu Leu His Cys Glu  
 245 250 255  
 Gly Arg Gly Asn Pro Val Pro Gln Gln Tyr Leu Trp Glu Lys Glu  
 260 265 270  
 Gly Ser Val Pro Pro Leu Lys Met Thr Gln Glu Ser Ala Leu Ile  
 275 280 285  
 Phe Pro Phe Leu Asn Lys Ser Asp Ser Gly Thr Tyr Gly Cys Thr  
 290 295 300  
 Ala Thr Ser Asn Met Gly Ser Tyr Lys Ala Tyr Tyr Thr Leu Asn  
 305 310 315  
 Val Asn Asp Pro Ser Pro Val Pro Ser Ser Ser Ser Thr Tyr His  
 320 325 330  
 Ala Ile Ile Gly Gly Ile Val Ala Phe Ile Val Phe Leu Leu Leu  
 335 340 345  
 Ile Met Leu Ile Phe Leu Gly His Tyr Leu Ile Arg His Lys Gly  
 350 355 360  
 Thr Tyr Leu Thr His Glu Ala Lys Gly Ser Asp Asp Ala Pro Asp  
 365 370 375  
 Ala Asp Thr Ala Ile Ile Asn Ala Glu Gly Gly Gln Ser Gly Gly  
 380 385 390  
 Asp Asp Lys Lys Glu Tyr Phe Ile  
 395

&lt;210&gt; 85

&lt;211&gt; 22

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic oligonucleotide Probe

<400> 85  
gctaggaatt ccacagaagc cc 22

<210> 86  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 86  
aacctggaat gtcaccgagc tg 22

<210> 87  
<211> 26  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 87  
cctagcacag tgacgaggga cttggc 26

<210> 88  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 88  
aagacacagc caccctaaac tgtcagtctt ctgggagcaa gcctgcagcc 50

<210> 89  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Sequence

<400> 89  
gccctggcag acgagggcga gtacacctgc tcaatcttca ctatgcctgt 50

<210> 90  
<211> 2755  
<212> DNA  
<213> Homo Sapien

<400> 90  
ggggggttagg gaggaaggaa tccaccccca ccccccaaa cccttttctt 50  
ctcctttcct ggcttcggac attggagcac taaatgaact tgaattgtgt 100  
ctgtggcgag caggatggc gctgttactt tgtgatgaga tcggggatga 150  
attgctcgct ttaaaaatgc tgctttggat tctgttgctg gagacgtctc 200  
tttgttttgc cgctggaaac gttacagggg acgtttgcaa agagaagatc 250

tgttcctgca atgagataga aggggaccta cacgtagact gtgaaaaaaaa 300  
gggcttcaca agtctgcagc gtttcactgc cccgacttcc cagttttacc 350  
atatttttct gcatggcaat tccctcactc gactttttccc taatgagttc 400  
gctaactttt ataatgcggt tagtttgcac atggaaaaca atggccttgca 450  
tgaaatcggt ccggggggctt ttctggggct gcagctggtg aaaaggctgc 500  
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ctggacgatc tggaatatct ccaggctgat tttaatttat tacgagatat 600  
agaccggggg gccttccagg acttgaacaa gctggagggtg ctcatttta 650  
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aacattccca agaatgccct gatcggccga gtggtctgcg aagccccac 900  
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cagctgcgac cacatcccag ggtcgggttt aaagatgaac tgcaacaaca 1250  
ggaacgtgag cagcttggtt gatttgaagc ccaagctctc taacgtgcag 1300  
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ctactgtaga gaacaacact ttcaagaacc ttttgacact cagggtggta 1450  
tacatggata gcaattacct ggacacgctg tcccgggaga aattcgcggt 1500  
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aacaacaacc tgctgaggtc cctgcctgtg gacgtgttcg ctggggtctc 1650  
gctctctaaa ctgagcctgc acaacaatta cttcatgtac ctcccgggtg 1700  
caggggtgct ggaccagtta acctccatca tccagataga cctccacgga 1750  
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acgcttgggt tccgaagtgc tgatgagcga cctcaagtgt gagacgccgg 1850  
 tgaacttctt tagaaaggat ttcattgtcc tctccaatga cgagatctgc 1900  
 cctcagctgt acgctaggat ctgcgccacg ttaacttcgc acagtaaaaa 1950  
 cagcactggg ttggcggaga ccgggacgca ctccaactcc tacctagaca 2000  
 ccagcagggg gtccatctcg gtgttgggtcc cgggactgct gctggtgttt 2050  
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 ccgaaagcgg tccaagagac gagatgccaa ctctcccgcg tccgagatta 2150  
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 aacgcagatg gggccacag agtgatgac tgtggctctc actcgctctc 2250  
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 gagccccctt tgacagaaag cccagcacga ccctgctgga agaactgaca 2550  
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 ttcccctgtg gattagcccc gtgatggctc cctgttggct acgcagggat 2700  
 gggcagttgc acgaaggcat gaatgtattg taaataagta actttgactt 2750  
 ctgac 2755

<210> 91  
 <211> 696  
 <212> PRT  
 <213> Homo Sapien

<400> 91  
 Met Leu Leu Trp Ile Leu Leu Leu Glu Thr Ser Leu Cys Phe Ala  
 1 5 10 15  
 Ala Gly Asn Val Thr Gly Asp Val Cys Lys Glu Lys Ile Cys Ser  
 20 25 30  
 Cys Asn Glu Ile Glu Gly Asp Leu His Val Asp Cys Glu Lys Lys  
 35 40 45  
 Gly Phe Thr Ser Leu Gln Arg Phe Thr Ala Pro Thr Ser Gln Phe  
 50 55 60  
 Tyr His Leu Phe Leu His Gly Asn Ser Leu Thr Arg Leu Phe Pro  
 65 70 75  
 Asn Glu Phe Ala Asn Phe Tyr Asn Ala Val Ser Leu His Met Glu  
 80 85 90

P1618P2C2.txt

Asn Asn Gly Leu His Glu Ile Val Pro Gly Ala Phe Leu Gly Leu  
 95 100 105  
 Gln Leu Val Lys Arg Leu His Ile Asn Asn Asn Lys Ile Lys Ser  
 110 115 120  
 Phe Arg Lys Gln Thr Phe Leu Gly Leu Asp Asp Leu Glu Tyr Leu  
 125 130 135  
 Gln Ala Asp Phe Asn Leu Leu Arg Asp Ile Asp Pro Gly Ala Phe  
 140 145 150  
 Gln Asp Leu Asn Lys Leu Glu Val Leu Ile Leu Asn Asp Asn Leu  
 155 160 165  
 Ile Ser Thr Leu Pro Ala Asn Val Phe Gln Tyr Val Pro Ile Thr  
 170 175 180  
 His Leu Asp Leu Arg Gly Asn Arg Leu Lys Thr Leu Pro Tyr Glu  
 185 190 195  
 Glu Val Leu Glu Gln Ile Pro Gly Ile Ala Glu Ile Leu Leu Glu  
 200 205 210  
 Asp Asn Pro Trp Asp Cys Thr Cys Asp Leu Leu Ser Leu Lys Glu  
 215 220 225  
 Trp Leu Glu Asn Ile Pro Lys Asn Ala Leu Ile Gly Arg Val Val  
 230 235 240  
 Cys Glu Ala Pro Thr Arg Leu Gln Gly Lys Asp Leu Asn Glu Thr  
 245 250 255  
 Thr Glu Gln Asp Leu Cys Pro Leu Lys Asn Arg Val Asp Ser Ser  
 260 265 270  
 Leu Pro Ala Pro Pro Ala Gln Glu Glu Thr Phe Ala Pro Gly Pro  
 275 280 285  
 Leu Pro Thr Pro Phe Lys Thr Asn Gly Gln Glu Asp His Ala Thr  
 290 295 300  
 Pro Gly Ser Ala Pro Asn Gly Gly Thr Lys Ile Pro Gly Asn Trp  
 305 310 315  
 Gln Ile Lys Ile Arg Pro Thr Ala Ala Ile Ala Thr Gly Ser Ser  
 320 325 330  
 Arg Asn Lys Pro Leu Ala Asn Ser Leu Pro Cys Pro Gly Gly Cys  
 335 340 345  
 Ser Cys Asp His Ile Pro Gly Ser Gly Leu Lys Met Asn Cys Asn  
 350 355 360  
 Asn Arg Asn Val Ser Ser Leu Ala Asp Leu Lys Pro Lys Leu Ser  
 365 370 375  
 Asn Val Gln Glu Leu Phe Leu Arg Asp Asn Lys Ile His Ser Ile  
 380 385 390  
 Arg Lys Ser His Phe Val Asp Tyr Lys Asn Leu Ile Leu Leu Asp  
 395 400 405

P1618P2C2.txt

Leu Gly Asn Asn Asn Ile Ala Thr Val Glu Asn Asn Thr Phe Lys  
 410 415 420  
 Asn Leu Leu Asp Leu Arg Trp Leu Tyr Met Asp Ser Asn Tyr Leu  
 425 430 435  
 Asp Thr Leu Ser Arg Glu Lys Phe Ala Gly Leu Gln Asn Leu Glu  
 440 445 450  
 Tyr Leu Asn Val Glu Tyr Asn Ala Ile Gln Leu Ile Leu Pro Gly  
 455 460 465  
 Thr Phe Asn Ala Met Pro Lys Leu Arg Ile Leu Ile Leu Asn Asn  
 470 475 480  
 Asn Leu Leu Arg Ser Leu Pro Val Asp Val Phe Ala Gly Val Ser  
 485 490 495  
 Leu Ser Lys Leu Ser Leu His Asn Asn Tyr Phe Met Tyr Leu Pro  
 500 505 510  
 Val Ala Gly Val Leu Asp Gln Leu Thr Ser Ile Ile Gln Ile Asp  
 515 520 525  
 Leu His Gly Asn Pro Trp Glu Cys Ser Cys Thr Ile Val Pro Phe  
 530 535 540  
 Lys Gln Trp Ala Glu Arg Leu Gly Ser Glu Val Leu Met Ser Asp  
 545 550 555  
 Leu Lys Cys Glu Thr Pro Val Asn Phe Phe Arg Lys Asp Phe Met  
 560 565 570  
 Leu Leu Ser Asn Asp Glu Ile Cys Pro Gln Leu Tyr Ala Arg Ile  
 575 580 585  
 Ser Pro Thr Leu Thr Ser His Ser Lys Asn Ser Thr Gly Leu Ala  
 590 595 600  
 Glu Thr Gly Thr His Ser Asn Ser Tyr Leu Asp Thr Ser Arg Val  
 605 610 615  
 Ser Ile Ser Val Leu Val Pro Gly Leu Leu Leu Val Phe Val Thr  
 620 625 630  
 Ser Ala Phe Thr Val Val Gly Met Leu Val Phe Ile Leu Arg Asn  
 635 640 645  
 Arg Lys Arg Ser Lys Arg Arg Asp Ala Asn Ser Ser Ala Ser Glu  
 650 655 660  
 Ile Asn Ser Leu Gln Thr Val Cys Asp Ser Ser Tyr Trp His Asn  
 665 670 675  
 Gly Pro Tyr Asn Ala Asp Gly Ala His Arg Val Tyr Asp Cys Gly  
 680 685 690  
 Ser His Ser Leu Ser Asp  
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<210> 92  
 <211> 22

<212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 92  
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<210> 93  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 93  
 attgttgtgc aggctgagtt taag 24

<210> 94  
 <211> 45  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 94  
 ggtggctata catggatagc aattacctgg acacgctgtc ccggg 45

<210> 95  
 <211> 2226  
 <212> DNA  
 <213> Homo Sapien

<400> 95  
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 cgcggcctaa gggaaactgt tggccgctgg gcccgcgggg ggattcttgg 150  
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 cgggttgggg aagccagctg tagagggcgg tgaccgcgct ccagacacag 250  
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cctgatgata gaggaagtgg aagtgccttt aggatggtga tactggggga 2000  
ccgggtagtg ctggggagag atattttctt atgtttattc ggagaatttg 2050  
gagaagtgat tgaacttttc aagacattgg aaacaaatag aacacaatat 2100  
aatttacatt aaaaaataat ttctaccaa atggaaagga aatgttctat 2150  
gttggtcagg ctaggagtat attggttcga aatcccaggg aaaaaataa 2200  
aaataaaaaa ttaaaggatt gttgat 2226

<210> 96  
 <211> 490  
 <212> PRT  
 <213> Homo Sapien

<400> 96  
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 20 25 30  
 Cys Ser Ala Ser Gly Ala Cys Tyr Ser Leu His His Ala Thr Met  
 35 40 45  
 Lys Arg Gln Ala Ala Glu Glu Ala Cys Ile Leu Arg Gly Gly Ala  
 50 55 60  
 Leu Ser Thr Val Arg Ala Gly Ala Glu Leu Arg Ala Val Leu Ala  
 65 70 75  
 Leu Leu Arg Ala Gly Pro Gly Pro Gly Gly Gly Ser Lys Asp Leu  
 80 85 90  
 Leu Phe Trp Val Ala Leu Glu Arg Arg Arg Ser His Cys Thr Leu  
 95 100 105  
 Glu Asn Glu Pro Leu Arg Gly Phe Ser Trp Leu Ser Ser Asp Pro  
 110 115 120  
 Gly Gly Leu Glu Ser Asp Thr Leu Gln Trp Val Glu Glu Pro Gln  
 125 130 135  
 Arg Ser Cys Thr Ala Arg Arg Cys Ala Val Leu Gln Ala Thr Gly  
 140 145 150  
 Gly Val Glu Pro Ala Gly Trp Lys Glu Met Arg Cys His Leu Arg  
 155 160 165  
 Ala Asn Gly Tyr Leu Cys Lys Tyr Gln Phe Glu Val Leu Cys Pro  
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 Ala Pro Arg Pro Gly Ala Ala Ser Asn Leu Ser Tyr Arg Ala Pro  
 185 190 195  
 Phe Gln Leu His Ser Ala Ala Leu Asp Phe Ser Pro Pro Gly Thr  
 200 205 210  
 Glu Val Ser Ala Leu Cys Arg Gly Gln Leu Pro Ile Ser Val Thr  
 215 220 225  
 Cys Ile Ala Asp Glu Ile Gly Ala Arg Trp Asp Lys Leu Ser Gly  
 230 235 240  
 Asp Val Leu Cys Pro Cys Pro Gly Arg Tyr Leu Arg Ala Gly Lys  
 245 250 255  
 Cys Ala Glu Leu Pro Asn Cys Leu Asp Asp Leu Gly Gly Phe Ala  
 260 265 270  
 Cys Glu Cys Ala Thr Gly Phe Glu Leu Gly Lys Asp Gly Arg Ser  
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Cys Val Thr Ser Gly Glu Gly Gln Pro Thr Leu Gly Gly Thr Gly  
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305 310 315  
Gln Arg Thr Trp Pro Ile Arg Val Asp Glu Lys Leu Gly Glu Thr  
320 325 330  
Pro Leu Val Pro Glu Gln Asp Asn Ser Val Thr Ser Ile Pro Glu  
335 340 345  
Ile Pro Arg Trp Gly Ser Gln Ser Thr Met Ser Thr Leu Gln Met  
350 355 360  
Ser Leu Gln Ala Glu Ser Lys Ala Thr Ile Thr Pro Ser Gly Ser  
365 370 375  
Val Ile Ser Lys Phe Asn Ser Thr Thr Ser Ser Ala Thr Pro Gln  
380 385 390  
Ala Phe Asp Ser Ser Ser Ala Val Val Phe Ile Phe Val Ser Thr  
395 400 405  
Ala Val Val Val Leu Val Ile Leu Thr Met Thr Val Leu Gly Leu  
410 415 420  
Val Lys Leu Cys Phe His Glu Ser Pro Ser Ser Gln Pro Arg Lys  
425 430 435  
Glu Ser Met Gly Pro Pro Gly Leu Glu Ser Asp Pro Glu Pro Ala  
440 445 450  
Ala Leu Gly Ser Ser Ser Ala His Cys Thr Asn Asn Gly Val Lys  
455 460 465  
Val Gly Asp Cys Asp Leu Arg Asp Arg Ala Glu Gly Ala Leu Leu  
470 475 480  
Ala Glu Ser Pro Leu Gly Ser Ser Asp Ala  
485 490

<210> 97

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 97

tggaaggaga tgcatgccca cctg 24

<210> 98

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 98

tgaccagtgg ggaaggacag 20

<210> 99  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 99  
 acagagcaga gggcgccttg 20

<210> 100  
 <211> 24  
 <212> DNA  
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<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 100  
 tcagggacaa gtggtgtctc tccc 24

<210> 101  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 101  
 tcagggaagg agtgtgcagt tctg 24

<210> 102  
 <211> 50  
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<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 102  
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<210> 103  
 <211> 2026  
 <212> DNA  
 <213> Homo Sapien

<400> 103  
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 cctccgccct gccggccgcg tatcccccg ctacctgggc cgccccgcgg 150  
 cggcgcgcgc gtgagagggg gcgcgcgggc agccgagcgc cggcgtgagc 200  
 cagcgtgct gccagtgtga gcggcgggtg gagcgcgggtg ggtgcggagg 250  
 ggcgtgtgtg ccggcgcgcg cgccgtgggg tgcaaaccgc gagcgtctac 300

gctgccatga ggggcgcgaa cgcctgggcg ccactctgcc tgctgctggc 350  
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aagtttgatg tggagcgaga taactactgc cgatatgatt atgtggctgt 950  
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catattcagg ccaaaaaaac tgcctacaac tacagaacag cctgtcacca 1150  
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ctaaaagtgt caagcgttga cagcttgga gcgtttattt atacatctct 1850

gtaaaaggat attttagaat tgagttgtgt gaagatgtca aaaaaagatt 1900  
 ttagaagtgc aatatttata gtgttatttg tttcaccttc aagcctttgc 1950  
 cctgaggtgt tacaatcttg tcttgcgttt tctaaatcaa tgcttaataa 2000  
 aatattttta aaggaaaaaa aaaaaa 2026

<210> 104  
 <211> 415  
 <212> PRT  
 <213> Homo Sapien

<400> 104

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Phe	Thr	Cys	Gly	Gly	Ile	Leu	Thr	Gly	Glu	Ser	Gly	Phe	Ile	Gly	35	40	45	
Ser	Glu	Gly	Phe	Pro	Gly	Val	Tyr	Pro	Pro	Asn	Ser	Lys	Cys	Thr	50	55	60	
Trp	Lys	Ile	Thr	Val	Pro	Glu	Gly	Lys	Val	Val	Val	Leu	Asn	Phe	65	70	75	
Arg	Phe	Ile	Asp	Leu	Glu	Ser	Asp	Asn	Leu	Cys	Arg	Tyr	Asp	Phe	80	85	90	
Val	Asp	Val	Tyr	Asn	Gly	His	Ala	Asn	Gly	Gln	Arg	Ile	Gly	Arg	95	100	105	
Phe	Cys	Gly	Thr	Phe	Arg	Pro	Gly	Ala	Leu	Val	Ser	Ser	Gly	Asn	110	115	120	
Lys	Met	Met	Val	Gln	Met	Ile	Ser	Asp	Ala	Asn	Thr	Ala	Gly	Asn	125	130	135	
Gly	Phe	Met	Ala	Met	Phe	Ser	Ala	Ala	Glu	Pro	Asn	Glu	Arg	Gly	140	145	150	
Asp	Gln	Tyr	Cys	Gly	Gly	Leu	Leu	Asp	Arg	Pro	Ser	Gly	Ser	Phe	155	160	165	
Lys	Thr	Pro	Asn	Trp	Pro	Asp	Arg	Asp	Tyr	Pro	Ala	Gly	Val	Thr	170	175	180	

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Cys	Val	Trp	His	Ile	Val	Ala	Pro	Lys	Asn	Gln	Leu	Ile	Glu	Leu	185	190	195
Lys	Phe	Glu	Lys	Phe	Asp	Val	Glu	Arg	Asp	Asn	Tyr	Cys	Arg	Tyr	200	205	210
Asp	Tyr	Val	Ala	Val	Phe	Asn	Gly	Gly	Glu	Val	Asn	Asp	Ala	Arg	215	220	225
Arg	Ile	Gly	Lys	Tyr	Cys	Gly	Asp	Ser	Pro	Pro	Ala	Pro	Ile	Val	230	235	240

Ser Glu Arg Asn Glu Leu Leu Ile Gln Phe Leu Ser Asp Leu Ser

245

250

255

Leu Thr Ala Asp Gly Phe Ile Gly His Tyr Ile Phe Arg Pro Lys  
 260 265 270  
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 275 280 285  
 Val Thr Thr Gly Leu Lys Pro Thr Val Ala Leu Cys Gln Gln Lys  
 290 295 300  
 Cys Arg Arg Thr Gly Thr Leu Glu Gly Asn Tyr Cys Ser Ser Asp  
 305 310 315  
 Phe Val Leu Ala Gly Thr Val Ile Thr Thr Ile Thr Arg Asp Gly  
 320 325 330  
 Ser Leu His Ala Thr Val Ser Ile Ile Asn Ile Tyr Lys Glu Gly  
 335 340 345  
 Asn Leu Ala Ile Gln Gln Ala Gly Lys Asn Met Ser Ala Arg Leu  
 350 355 360  
 Thr Val Val Cys Lys Gln Cys Pro Leu Leu Arg Arg Gly Leu Asn  
 365 370 375  
 Tyr Ile Ile Met Gly Gln Val Gly Glu Asp Gly Arg Gly Lys Ile  
 380 385 390  
 Met Pro Asn Ser Phe Ile Met Met Phe Lys Thr Lys Asn Gln Lys  
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 410 415

&lt;210&gt; 105

&lt;211&gt; 22

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 105

ccgattcata gacctcgaga gt 22

&lt;210&gt; 106

&lt;211&gt; 22

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 106

gtcaaggagt cctccacaat ac 22

&lt;210&gt; 107

&lt;211&gt; 45

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

P1618P2C2.txt  
<223> Synthetic Oligonucleotide Probe

<400> 107

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<210> 108

<211> 1838

<212> DNA

<213> Homo Sapien

<400> 108

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agatggcccc atggcccccg aagggcctag tcccagctgt gctctggggc 150  
ctcagcctct tcctcaacct cccaggacct atctggctcc agccctctcc 200  
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cagcagatgt tctttggcat catcatctgt gactggcca cgctggctgc 1250  
taagggcgac ttggtgttca ccgccatctt cattggggct gtggcgcca 1300



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 ggtcttgga agttaaaaaa aaaaaaaaaa aaaaaaaa 1838

&lt;210&gt; 109

&lt;211&gt; 420

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 109

Met Ala Pro Trp Pro Pro Lys Gly Leu Val Pro Ala Val Leu Trp  
 1 5 10 15  
 Gly Leu Ser Leu Phe Leu Asn Leu Pro Gly Pro Ile Trp Leu Gln  
 20 25 30  
 Pro Ser Pro Pro Pro Gln Ser Ser Pro Pro Pro Gln Pro His Pro  
 35 40 45  
 Cys His Thr Cys Arg Gly Leu Val Asp Ser Phe Asn Lys Gly Leu  
 50 55 60  
 Glu Arg Thr Ile Arg Asp Asn Phe Gly Gly Gly Asn Thr Ala Trp  
 65 70 75  
 Glu Glu Glu Asn Leu Ser Lys Tyr Lys Asp Ser Glu Thr Arg Leu  
 80 85 90  
 Val Glu Val Leu Glu Gly Val Cys Ser Lys Ser Asp Phe Glu Cys  
 95 100 105  
 His Arg Leu Leu Glu Leu Ser Glu Glu Leu Val Glu Ser Trp Trp  
 110 115 120  
 Phe His Lys Gln Gln Glu Ala Pro Asp Leu Phe Gln Trp Leu Cys  
 125 130 135  
 Ser Asp Ser Leu Lys Leu Cys Cys Pro Ala Gly Thr Phe Gly Pro  
 140 145 150  
 Ser Cys Leu Pro Cys Pro Gly Gly Thr Glu Arg Pro Cys Gly Gly  
 155 160 165  
 Tyr Gly Gln Cys Glu Gly Glu Gly Thr Arg Gly Gly Ser Gly His  
 170 175 180

P1618P2C2.txt

Cys Asp Cys Gln Ala Gly Tyr Gly Gly Glu Ala Cys Gly Gln Cys  
185 190 195  
Gly Leu Gly Tyr Phe Glu Ala Glu Arg Asn Ala Ser His Leu Val  
200 205 210  
Cys Ser Ala Cys Phe Gly Pro Cys Ala Arg Cys Ser Gly Pro Glu  
215 220 225  
Glu Ser Asn Cys Leu Gln Cys Lys Lys Gly Trp Ala Leu His His  
230 235 240  
Leu Lys Cys Val Asp Ile Asp Glu Cys Gly Thr Glu Gly Ala Asn  
245 250 255  
Cys Gly Ala Asp Gln Phe Cys Val Asn Thr Glu Gly Ser Tyr Glu  
260 265 270  
Cys Arg Asp Cys Ala Lys Ala Cys Leu Gly Cys Met Gly Ala Gly  
275 280 285  
Pro Gly Arg Cys Lys Lys Cys Ser Pro Gly Tyr Gln Gln Val Gly  
290 295 300  
Ser Lys Cys Leu Asp Val Asp Glu Cys Glu Thr Glu Val Cys Pro  
305 310 315  
Gly Glu Asn Lys Gln Cys Glu Asn Thr Glu Gly Gly Tyr Arg Cys  
320 325 330  
Ile Cys Ala Glu Gly Tyr Lys Gln Met Glu Gly Ile Cys Val Lys  
335 340 345  
Glu Gln Ile Pro Glu Ser Ala Gly Phe Phe Ser Glu Met Thr Glu  
350 355 360  
Asp Glu Leu Val Val Leu Gln Gln Met Phe Phe Gly Ile Ile Ile  
365 370 375  
Cys Ala Leu Ala Thr Leu Ala Ala Lys Gly Asp Leu Val Phe Thr  
380 385 390  
Ala Ile Phe Ile Gly Ala Val Ala Ala Met Thr Gly Tyr Trp Leu  
395 400 405  
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<220>

<223> Synthetic oligonucleotide Probe

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<211> 22

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<400> 111

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<223> Synthetic Oligonucleotide Probe

<400> 112

atctgcttgt agccctcggc ac 22

<210> 113

<211> 1616

<212> DNA

<213> Homo Sapien

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<221> unsure

<222> 1461

<223> unknown base

<400> 113

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gtgtgtgttt ctgaagtgtt cgagggtacc aggagagctg gcgatgactg 1250  
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agaaagccca ntgtgtcatt gtttacttgt cctgtcactg gatctgggct 1500  
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acattttatt ctaaaa 1616

<210> 114

<211> 366

<212> PRT

<213> Homo Sapien

<400> 114

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Leu	Leu	Arg	Gln	Leu	Gln	Leu	Lys	Glu	Val	Pro	Thr	Leu	Asp	Arg
			35						40					45
Ala	Asp	Met	Glu	Glu	Leu	Val	Ile	Pro	Thr	His	Val	Arg	Ala	Gln
			50						55					60
Tyr	Val	Ala	Leu	Leu	Gln	Arg	Ser	His	Gly	Asp	Arg	Ser	Arg	Gly
			65						70					75
Lys	Arg	Phe	Ser	Gln	Ser	Phe	Arg	Glu	Val	Ala	Gly	Arg	Phe	Leu
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Ala	Leu	Glu	Ala	Ser	Thr	His	Leu	Leu	Val	Phe	Gly	Met	Glu	Gln
			95						100					105
Arg	Leu	Pro	Pro	Asn	Ser	Glu	Leu	Val	Gln	Ala	Val	Leu	Arg	Leu
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Phe Gln Glu Pro Val Pro Lys Ala Ala Leu His Arg His Gly Arg  
 125 130 135  
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 140 145 150  
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 155 160 165  
 Arg Leu Val Ser Val His Glu Ser Gly Trp Lys Ala Phe Asp Val  
 170 175 180  
 Thr Glu Ala Val Asn Phe Trp Gln Gln Leu Ser Arg Pro Arg Gln  
 185 190 195  
 Pro Leu Leu Leu Gln Val Ser Val Gln Arg Glu His Leu Gly Pro  
 200 205 210  
 Leu Ala Ser Gly Ala His Lys Leu Val Arg Phe Ala Ser Gln Gly  
 215 220 225  
 Ala Pro Ala Gly Leu Gly Glu Pro Gln Leu Glu Leu His Thr Leu  
 230 235 240  
 Asp Leu Gly Asp Tyr Gly Ala Gln Gly Asp Cys Asp Pro Glu Ala  
 245 250 255  
 Pro Met Thr Glu Gly Thr Arg Cys Cys Arg Gln Glu Met Tyr Ile  
 260 265 270  
 Asp Leu Gln Gly Met Lys Trp Ala Glu Asn Trp Val Leu Glu Pro  
 275 280 285  
 Pro Gly Phe Leu Ala Tyr Glu Cys Val Gly Thr Cys Arg Gln Pro  
 290 295 300  
 Pro Glu Ala Leu Ala Phe Lys Trp Pro Phe Leu Gly Pro Arg Gln  
 305 310 315  
 Cys Ile Ala Ser Glu Thr Asp Ser Leu Pro Met Ile Val Ser Ile  
 320 325 330  
 Lys Glu Gly Gly Arg Thr Arg Pro Gln Val Val Ser Leu Pro Asn  
 335 340 345  
 Met Arg Val Gln Lys Cys Ser Cys Ala Ser Asp Gly Ala Leu Val  
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 Pro Arg Arg Leu Gln Pro  
 365

&lt;210&gt; 115

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic oligonucleotide Probe

&lt;400&gt; 115

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&lt;210&gt; 116

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<210> 117  
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<212> DNA  
<213> Homo Sapien

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tggcgatcct gtttgtctcc ctggcattgg gcagtgttac agtgcactct 150  
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 agctgctcag gagcctggca acaagagcaa aactccagct caaaaaaaaa 1850  
 aaaaaaa 1857

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 <211> 299  
 <212> PRT  
 <213> Homo Sapien

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 Val His Ser Ser Glu Pro Glu Val Arg Ile Pro Glu Asn Asn Pro  
 35 40 45  
 Val Lys Leu Ser Cys Ala Tyr Ser Gly Phe Ser Ser Pro Arg Val  
 50 55 60  
 Glu Trp Lys Phe Asp Gln Gly Asp Thr Thr Arg Leu Val Cys Tyr  
 65 70 75  
 Asn Asn Lys Ile Thr Ala Ser Tyr Glu Asp Arg Val Thr Phe Leu  
 80 85 90

P1618P2C2.txt

Pro Thr Gly Ile Thr Phe Lys Ser Val Thr Arg Glu Asp Thr Gly  
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 125 130 135  
 Thr Val Asn Ile Pro Ser Ser Ala Thr Ile Gly Asn Arg Ala Val  
 140 145 150  
 Leu Thr Cys Ser Glu Gln Asp Gly Ser Pro Pro Ser Glu Tyr Thr  
 155 160 165  
 Trp Phe Lys Asp Gly Ile Val Met Pro Thr Asn Pro Lys Ser Thr  
 170 175 180  
 Arg Ala Phe Ser Asn Ser Ser Tyr Val Leu Asn Pro Thr Thr Gly  
 185 190 195  
 Glu Leu Val Phe Asp Pro Leu Ser Ala Ser Asp Thr Gly Glu Tyr  
 200 205 210  
 Ser Cys Glu Ala Arg Asn Gly Tyr Gly Thr Pro Met Thr Ser Asn  
 215 220 225  
 Ala Val Arg Met Glu Ala Val Glu Arg Asn Val Gly Val Ile Val  
 230 235 240  
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 245 250 255  
 Gly Ile Trp Phe Ala Tyr Ser Arg Gly His Phe Asp Arg Thr Lys  
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<213> Artificial Sequence

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<223> Synthetic Oligonucleotide Probe

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<210> 121

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 121



P1618P2C2.txt  
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<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 122

acacctgggtt caaagatggg 20

<210> 123

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 123

taggaagagt tgctgaaggc acgg 24

<210> 124

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 124

ttgccttact caggtgctac 20

<210> 125

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 125

actcagcagt ggtaggaaag 20

<210> 126

<211> 1210

<212> DNA

<213> Homo Sapien

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gcgcaggttg gagcgtggcg aacaggggct ctgggcctgg cgctgctgct 100

gctgctcggc ctcggactag gcctggaggc cgccgcgagc ccgctttcca 150

ccccgacctc tgcccaggcc gcaggcccca gctcaggctc gtgcccaccc 200

accaagttcc agtgccgcac cagtggctta tgcgtgcccc tcacctggcg 250

ctgcgacagg gacttggact gcagcgatgg cagcgatgag gaggagtga 300

P1618P2C2.txt

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<210> 127  
 <211> 282  
 <212> PRT  
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<400> 127

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			20						25					30
Leu	Glu	Ala	Ala	Ala	Ser	Pro	Leu	Ser	Thr	Pro	Thr	Ser	Ala	Gln
			35						40					45
Ala	Ala	Gly	Pro	Ser	Ser	Gly	Ser	Cys	Pro	Pro	Thr	Lys	Phe	Gln
			50						55					60
Cys	Arg	Thr	Ser	Gly	Leu	Cys	Val	Pro	Leu	Thr	Trp	Arg	Cys	Asp
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<220>
<223> Synthetic Oligonucleotide Probe

<400> 129
ttggttcac agccgagctc gtcg 24

<210> 130
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&lt;210&gt; 132

&lt;211&gt; 490

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 132

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 Ala Val Ile Leu Trp Phe Gln Leu Ala Leu Cys Phe Gly Pro Ala  
 35 40 45  
 Gln Leu Thr Gly Gly Phe Asp Asp Leu Gln Val Cys Ala Asp Pro  
 50 55 60  
 Gly Ile Pro Glu Asn Gly Phe Arg Thr Pro Ser Gly Gly Val Phe  
 65 70 75  
 Phe Glu Gly Ser Val Ala Arg Phe His Cys Gln Asp Gly Phe Lys  
 80 85 90  
 Leu Lys Gly Ala Thr Lys Arg Leu Cys Leu Lys His Phe Asn Gly  
 95 100 105  
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 Asp Cys Arg Ile Pro Gln Ile Glu Asp Ala Glu Ile His Asn Lys  
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P1618P2C2.txt

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Phe Lys Ile Arg	Tyr 155	Pro Asp Leu His	Asn 160	Met Val Ser Leu	Cys 165
Arg Asp Asp Gly	Thr 170	Trp Asn Asn Leu	Pro 175	Ile Cys Gln Gly	Cys 180
Leu Arg Pro Leu	Ala 185	Ser Ser Asn Gly	Tyr 190	Val Asn Ile Ser	Glu 195
Leu Gln Thr Ser	Phe 200	Pro Val Gly Thr	Val 205	Ile Ser Tyr Arg	Cys 210
Phe Pro Gly Phe	Lys 215	Leu Asp Gly Ser	Ala 220	Tyr Leu Glu Cys	Leu 225
Gln Asn Leu Ile	Trp 230	Ser Ser Ser Pro	Pro 235	Arg Cys Leu Ala	Leu 240
Glu Ala Gln Val	Cys 245	Pro Leu Pro Pro	Met 250	Val Ser His Gly	Asp 255
Phe Val Cys His	Pro 260	Arg Pro Cys Glu	Arg 265	Tyr Asn His Gly	Thr 270
Val Val Glu Phe	Tyr 275	Cys Asp Pro Gly	Tyr 280	Ser Leu Thr Ser	Asp 285
Tyr Lys Tyr Ile	Thr 290	Cys Gln Tyr Gly	Glu 295	Trp Phe Pro Ser	Tyr 300
Gln Val Tyr Cys	Ile 305	Lys Ser Glu Gln	Thr 310	Trp Pro Ser Thr	His 315
Glu Thr Leu Leu	Thr 320	Thr Trp Lys Ile	Val 325	Ala Phe Thr Ala	Thr 330
Ser Val Leu Leu	Val 335	Leu Leu Leu Val	Ile 340	Leu Ala Arg Met	Phe 345
Gln Thr Lys Phe	Lys 350	Ala His Phe Pro	Pro 355	Arg Gly Pro Pro	Arg 360
Ser Ser Ser Ser	Asp 365	Pro Asp Phe Val	Val 370	Val Asp Gly Val	Pro 375
Val Met Leu Pro	Ser 380	Tyr Asp Glu Ala	Val 385	Ser Gly Gly Leu	Ser 390
Ala Leu Gly Pro	Gly 395	Tyr Met Ala Ser	Val 400	Gly Gln Gly Cys	Pro 405
Leu Pro Val Asp	Asp 410	Gln Ser Pro Pro	Ala 415	Tyr Pro Gly Ser	Gly 420
Asp Thr Asp Thr	Gly 425	Pro Gly Glu Ser	Glu 430	Thr Cys Asp Ser	Val 435
Ser Gly Ser Ser	Glu 440	Leu Leu Gln Ser	Leu 445	Tyr Ser Pro Pro	Arg 450

P1618P2C2.txt

Cys Gln Glu Ser Thr His Pro Ala Ser Asp Asn Pro Asp Ile Ile  
455 460 465

Ala Ser Thr Ala Glu Glu Val Ala Ser Thr Ser Pro Gly Ile His  
470 475 480

His Ala His Trp Val Leu Phe Leu Arg Asn  
485 490

<210> 133

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 133

atctcctatc gctgctttcc cgg 23

<210> 134

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 134

agccaggatc gcagtaaaac tcc 23

<210> 135

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 135

atttaaacctt gatgggtctg cgtatcttga gtgcttaca aaccttatct 50

<210> 136

<211> 1815

<212> DNA

<213> Homo Sapien

<400> 136

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gtggcctaga gatgctgctg ccgcggttgc agttgtcgcg cagcctctg 100

cccgccagcc cgctccaccg ccgtagcgcc cgagtgtcgg ggggcgaccc 150

cgagtggggc catgaggccg ggaaccgcgc tacaggccgt gctgctggcc 200

gtgctgctgg tggggctgcg ggccgcgacg ggtcgcttgc tgagtgcctc 250

ggatttgac ctcagaggag ggcagccagt ctgccgggga gggacacaga 300

ggccttgta taaagtcatt tacttccatg atacttctcg aagactgaac 350

P1618P2C2.txt

tttgaggaag ccaaagaagc ctgcaggagg gatggaggcc agctagtcag 400  
 catcgagtct gaagatgaac agaaactgat agaaaagttc attgaaaacc 450  
 tcttgccatc tgatggtgac ttctggattg ggctcaggag gcgtgaggag 500  
 aaacaaagca atagcacagc ctgccaggac ctttatgctt ggactgatgg 550  
 cagcatatca caatttagga actggtatgt ggatgagccg tcctgcggca 600  
 gcgagggtctg cgtgggtcatg taccatcagc catcggcacc cgctggcatc 650  
 ggaggcccct acatgttcca gtggaatgat gaccggtgca acatgaagaa 700  
 caatttcatt tgcaaatatt ctgatgagaa accagcagtt ccttctagag 750  
 aagctgaagg tgaggaaaca gagctgacaa cacctgtact tccagaagaa 800  
 acacaggaag aagatgccaa aaaaacattt aaagaaagta gagaagctgc 850  
 cttgaatctg gcctacatcc taatccccag cattcccctt ctctcctcc 900  
 ttgtggtcac cacagttgta tgttgggttt ggatctgtag aaaaagaaaa 950  
 cgggagcagc cagaccctag cacaagaag caacacacca tctggccctc 1000  
 tcctcaccag ggaaacagcc cggacctaga ggtctacaat gtcataagaa 1050  
 aacaaagcga agctgactta gctgagaccc ggccagacct gaagaatatt 1100  
 tcattccgag tgtgttcggg agaagccact cccgatgaca tgtcttgtga 1150  
 ctatgacaac atggctgtga acccatcaga aagtgggttt gtgactctgg 1200  
 tgagcgtgga gagtggattt gtgaccaatg acatttatga gttctcccca 1250  
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 tggttattag gacatataaa aaactgaaac tgacaacaat ggaaaagaaa 1350  
 tgataagcaa aatcctctta ttttctataa ggaaaatata cagaaggtct 1400  
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 aatccagaat cttttcaaag cccacatatg gtagcacagg ttggcctgtg 1750  
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 agcaggaaaa aaaaa 1815

<210> 137  
 <211> 382  
 <212> PRT



<213> Homo Sapien

P1618P2C2.txt

<400> 137

Met Arg Pro Gly Thr Ala Leu Gln Ala Val Leu Leu Ala Val Leu  
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Leu Val Gly Leu Arg Ala Ala Thr Gly Arg Leu Leu Ser Ala Ser  
20 25 30  
Asp Leu Asp Leu Arg Gly Gly Gln Pro Val Cys Arg Gly Gly Thr  
35 40 45  
Gln Arg Pro Cys Tyr Lys Val Ile Tyr Phe His Asp Thr Ser Arg  
50 55 60  
Arg Leu Asn Phe Glu Glu Ala Lys Glu Ala Cys Arg Arg Asp Gly  
65 70 75  
Gly Gln Leu Val Ser Ile Glu Ser Glu Asp Glu Gln Lys Leu Ile  
80 85 90  
Glu Lys Phe Ile Glu Asn Leu Leu Pro Ser Asp Gly Asp Phe Trp  
95 100 105  
Ile Gly Leu Arg Arg Arg Glu Glu Lys Gln Ser Asn Ser Thr Ala  
110 115 120  
Cys Gln Asp Leu Tyr Ala Trp Thr Asp Gly Ser Ile Ser Gln Phe  
125 130 135  
Arg Asn Trp Tyr Val Asp Glu Pro Ser Cys Gly Ser Glu Val Cys  
140 145 150  
Val Val Met Tyr His Gln Pro Ser Ala Pro Ala Gly Ile Gly Gly  
155 160 165  
Pro Tyr Met Phe Gln Trp Asn Asp Asp Arg Cys Asn Met Lys Asn  
170 175 180  
Asn Phe Ile Cys Lys Tyr Ser Asp Glu Lys Pro Ala Val Pro Ser  
185 190 195  
Arg Glu Ala Glu Gly Glu Glu Thr Glu Leu Thr Thr Pro Val Leu  
200 205 210  
Pro Glu Glu Thr Gln Glu Glu Asp Ala Lys Lys Thr Phe Lys Glu  
215 220 225  
Ser Arg Glu Ala Ala Leu Asn Leu Ala Tyr Ile Leu Ile Pro Ser  
230 235 240  
Ile Pro Leu Leu Leu Leu Leu Val Val Thr Thr Val Val Cys Trp  
245 250 255  
Val Trp Ile Cys Arg Lys Arg Lys Arg Glu Gln Pro Asp Pro Ser  
260 265 270  
Thr Lys Lys Gln His Thr Ile Trp Pro Ser Pro His Gln Gly Asn  
275 280 285  
Ser Pro Asp Leu Glu Val Tyr Asn Val Ile Arg Lys Gln Ser Glu  
290 295 300

Ala Asp Leu Ala Glu Thr Arg Pro Asp Leu Lys Asn Ile Ser Phe  
 305 310 315  
 Arg Val Cys Ser Gly Glu Ala Thr Pro Asp Asp Met Ser Cys Asp  
 320 325 330  
 Tyr Asp Asn Met Ala Val Asn Pro Ser Glu Ser Gly Phe Val Thr  
 335 340 345  
 Leu Val Ser Val Glu Ser Gly Phe Val Thr Asn Asp Ile Tyr Glu  
 350 355 360  
 Phe Ser Pro Asp Gln Met Gly Arg Ser Lys Glu Ser Gly Trp Val  
 365 370 375  
 Glu Asn Glu Ile Tyr Gly Tyr  
 380

<210> 138  
 <211> 50  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 138  
 gttcattgaa aacctcttgc catctgatgg tgacttctgg attgggctca 50

<210> 139  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 139  
 aagccaaaga agcctgcagg aggg 24

<210> 140  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 140  
 cagtccaagc ataaaggtcc tggc 24

<210> 141  
 <211> 1514  
 <212> DNA  
 <213> Homo Sapien

<400> 141  
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 ctggatgtac gcatccgcag gttcccgagg acttgggggc gcccgtgag 100  
 ccccgcgcc cgcagaagac ttgtgtttgc ctctgcagc ctcaaccgg 150

agggcagcga gggcctacca ccatgatcac tgggtgtgttc agcatgcgct 200  
 tgtggacccc agtgggcgctc ctgacctcgc tggcgactg cctgcaccag 250  
 cggcgggtgg ccctggccga gctgcaggag gccgatggcc agtgtccggt 300  
 cgaccgcagc ctgctgaagt tgaaaatggt gcaggtcgtg tttcgacacg 350  
 gggctcggag tcctctcaag ccgctccgc tggaggagca ggtagagtgg 400  
 aacccccagc tattagaggt cccaccccaa actcagtttg attacacagt 450  
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 ttattcgttc cactaacatt tttcggaatc tggagtccac ccgttgtttg 700  
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 gacctgggg atttttgacc acaaaggcc accgtttgct gttgacctga 1250  
 ccatggaact ttaccagcac ctggaatcta aggagtgggt tgtgcagctc 1300  
 tattaccag ggaaggagca ggtgccgaga gggtgccctg atgggctctg 1350  
 cccgctggac atgttcttga atgccatgtc agtttatacc ttaagcccag 1400  
 aaaaatacca tgcactctgc tctcaaaactc aggtgatgga agttggaaat 1450  
 gaagagtaac tgatttataa aagcaggatg tggtgatttt aaaataaagt 1500  
 gcctttatac aatg 1514

&lt;210&gt; 142

&lt;211&gt; 428

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 142

Met Ile Thr Gly Val Phe Ser Met Arg Leu Trp Thr Pro Val Gly

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 Val Leu Thr Ser Leu Ala Tyr Cys Leu His Gln Arg Arg Val Ala  
 20 25 30  
 Leu Ala Glu Leu Gln Glu Ala Asp Gly Gln Cys Pro Val Asp Arg  
 35 40 45  
 Ser Leu Leu Lys Leu Lys Met Val Gln Val Val Phe Arg His Gly  
 50 55 60  
 Ala Arg Ser Pro Leu Lys Pro Leu Pro Leu Glu Glu Gln Val Glu  
 65 70 75  
 Trp Asn Pro Gln Leu Leu Glu Val Pro Pro Gln Thr Gln Phe Asp  
 80 85 90  
 Tyr Thr Val Thr Asn Leu Ala Gly Gly Pro Lys Pro Tyr Ser Pro  
 95 100 105  
 Tyr Asp Ser Gln Tyr His Glu Thr Thr Leu Lys Gly Gly Met Phe  
 110 115 120  
 Ala Gly Gln Leu Thr Lys Val Gly Met Gln Gln Met Phe Ala Leu  
 125 130 135  
 Gly Glu Arg Leu Arg Lys Asn Tyr Val Glu Asp Ile Pro Phe Leu  
 140 145 150  
 Ser Pro Thr Phe Asn Pro Gln Glu Val Phe Ile Arg Ser Thr Asn  
 155 160 165  
 Ile Phe Arg Asn Leu Glu Ser Thr Arg Cys Leu Leu Ala Gly Leu  
 170 175 180  
 Phe Gln Cys Gln Lys Glu Gly Pro Ile Ile Ile His Thr Asp Glu  
 185 190 195  
 Ala Asp Ser Glu Val Leu Tyr Pro Asn Tyr Gln Ser Cys Trp Ser  
 200 205 210  
 Leu Arg Gln Arg Thr Arg Gly Arg Arg Gln Thr Ala Ser Leu Gln  
 215 220 225  
 Pro Gly Ile Ser Glu Asp Leu Lys Lys Val Lys Asp Arg Met Gly  
 230 235 240  
 Ile Asp Ser Ser Asp Lys Val Asp Phe Phe Ile Leu Leu Asp Asn  
 245 250 255  
 Val Ala Ala Glu Gln Ala His Asn Leu Pro Ser Cys Pro Met Leu  
 260 265 270  
 Lys Arg Phe Ala Arg Met Ile Glu Gln Arg Ala Val Asp Thr Ser  
 275 280 285  
 Leu Tyr Ile Leu Pro Lys Glu Asp Arg Glu Ser Leu Gln Met Ala  
 290 295 300  
 Val Gly Pro Phe Leu His Ile Leu Glu Ser Asn Leu Leu Lys Ala  
 305 310 315  
 Met Asp Ser Ala Thr Ala Pro Asp Lys Ile Arg Lys Leu Tyr Leu

320		330
Tyr Ala Ala His	Asp Val Thr Phe Ile	Pro Leu Leu Met Thr Leu
	335	340 345
Gly Ile Phe Asp	His Lys Trp Pro Pro	Phe Ala Val Asp Leu Thr
	350	355 360
Met Glu Leu Tyr	Gln His Leu Glu Ser	Lys Glu Trp Phe Val Gln
	365	370 375
Leu Tyr Tyr His	Gly Lys Glu Gln Val	Pro Arg Gly Cys Pro Asp
	380	385 390
Gly Leu Cys Pro	Leu Asp Met Phe Leu	Asn Ala Met Ser Val Tyr
	395	400 405
Thr Leu Ser Pro	Glu Lys Tyr His Ala	Leu Cys Ser Gln Thr Gln
	410	415 420
Val Met Glu Val	Gly Asn Glu Glu	
	425	

&lt;210&gt; 143

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 143

ccaactacca aagctgctgg agcc 24

&lt;210&gt; 144

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 144

gcagctctat taccacggga agga 24

&lt;210&gt; 145

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 145

tccttcccgt ggtaatagag ctgc 24

&lt;210&gt; 146

&lt;211&gt; 45

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 146

ggcagagaac cagaggccgg aggagactgc ctctttacag ccagg 45

&lt;210&gt; 147

&lt;211&gt; 1686

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;400&gt; 147

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gctctgctat tctccttgat ccttgccatt tgcaccagac ctggattcct 150  
agcgtctcca tctggagtgc ggctggtggg gggcctccac cgctgtgaag 200  
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ggctgggaca ttaaggacgt ggctgtgttg tgccgggagc tgggctgtgg 300  
agctgccagc ggaacccta gtggtatatt gtatgagcca ccagcagaaa 350  
aagagcaaaa ggtcctcatc caatcagtca gttgcacagg aacagaagat 400  
acattggctc agtgtgagca agaagaagtt tatgattggt cacatgatga 450  
agatgctggg gcatcgtgtg agaaccaga gagctctttc tcccagtc 500  
cagaggggtg caggctggct gacggccctg ggcattgcaa gggacgcgtg 550  
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cctccgggcc gcaaagggtg tgtgccggca gctgggatgt gggagggctg 650  
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tggctgagcc agatgtcatg ctcaggacga gaagcaacc ttcaggattg 750  
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ctctgctctg ggcgactgga ggtgctgcac aagggcgtat ggggctctgt 900  
ctgtgatgac aactggggag aaaaggagga ccaggtggtg tgcaagcaac 950  
tgggctgtgg gaagtcctc tctccctcct tcagagaccg gaaatgctat 1000

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gcaccacca ggaagatgtg gctgtcatct gctcagtgtg ggtgggcatc 1150  
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atttactgtc tacatgactg catgggatga aactgatct tcttctgccc 1250  
ttggactggg acttatactt ggtgccctg attctcaggc cttcagagtt 1300  
ggatcagaac ttacaacatc aggtctagtt ctcaggccat cagacatagt 1350

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 ttcccagcct ccataattgt gtgtatcaac tacttaaata cattctcaca 1450  
 cacacacaca cacacacaca cacacacaca cacacataca ccatttgtcc 1500  
 tgtttctctg aagaactctg acaaaataca gattttggta ctgaaagaga 1550  
 ttctagagga acggaatttt aaggataaat tttctgaatt gggttatgggg 1600  
 tttctgaaat tggctctata atctaattag atataaaatt ctggttaactt 1650  
 tatttacaat aataaagata gcactatgtg ttcaaa 1686

<210> 148

<211> 347

<212> PRT

<213> Homo Sapien

<400> 148

Met	Ala	Leu	Leu	Phe	Ser	Leu	Ile	Leu	Ala	Ile	Cys	Thr	Arg	Pro	1		5		10		15
Gly	Phe	Leu	Ala	Ser	Pro	Ser	Gly	Val	Arg	Leu	Val	Gly	Gly	Leu	20		25		30		
His	Arg	Cys	Glu	Gly	Arg	Val	Glu	Val	Glu	Gln	Lys	Gly	Gln	Trp	35		40		45		
Gly	Thr	Val	Cys	Asp	Asp	Gly	Trp	Asp	Ile	Lys	Asp	Val	Ala	Val	50		55		60		
Leu	Cys	Arg	Glu	Leu	Gly	Cys	Gly	Ala	Ala	Ser	Gly	Thr	Pro	Ser	65		70		75		
Gly	Ile	Leu	Tyr	Glu	Pro	Pro	Ala	Glu	Lys	Glu	Gln	Lys	Val	Leu	80		85		90		
Ile	Gln	Ser	Val	Ser	Cys	Thr	Gly	Thr	Glu	Asp	Thr	Leu	Ala	Gln	95		100		105		
Cys	Glu	Gln	Glu	Glu	Val	Tyr	Asp	Cys	Ser	His	Asp	Glu	Asp	Ala	110		115		120		
Gly	Ala	Ser	Cys	Glu	Asn	Pro	Glu	Ser	Ser	Phe	Ser	Pro	Val	Pro	125		130		135		
Glu	Gly	Val	Arg	Leu	Ala	Asp	Gly	Pro	Gly	His	Cys	Lys	Gly	Arg	140		145		150		
Val	Glu	Val	Lys	His	Gln	Asn	Gln	Trp	Tyr	Thr	Val	Cys	Gln	Thr	155		160		165		
Gly	Trp	Ser	Leu	Arg	Ala	Ala	Lys	Val	Val	Cys	Arg	Gln	Leu	Gly	170		175		180		
Cys	Gly	Arg	Ala	Val	Leu	Thr	Gln	Lys	Arg	Cys	Asn	Lys	His	Ala	185		190		195		
Tyr	Gly	Arg	Lys	Pro	Ile	Trp	Leu	Ser	Gln	Met	Ser	Cys	Ser	Gly	200		205		210		

P1618P2C2.txt

Arg Glu Ala Thr Leu Gln Asp Cys Pro Ser Gly Pro Trp Gly Lys  
 215 220 225  
 Asn Thr Cys Asn His Asp Glu Asp Thr Trp Val Glu Cys Glu Asp  
 230 235 240  
 Pro Phe Asp Leu Arg Leu Val Gly Gly Asp Asn Leu Cys Ser Gly  
 245 250 255  
 Arg Leu Glu Val Leu His Lys Gly Val Trp Gly Ser Val Cys Asp  
 260 265 270  
 Asp Asn Trp Gly Glu Lys Glu Asp Gln Val Val Cys Lys Gln Leu  
 275 280 285  
 Gly Cys Gly Lys Ser Leu Ser Pro Ser Phe Arg Asp Arg Lys Cys  
 290 295 300  
 Tyr Gly Pro Gly Val Gly Arg Ile Trp Leu Asp Asn Val Arg Cys  
 305 310 315  
 Ser Gly Glu Glu Gln Ser Leu Glu Gln Cys Gln His Arg Phe Trp  
 320 325 330  
 Gly Phe His Asp Cys Thr His Gln Glu Asp Val Ala Val Ile Cys  
 335 340 345

Ser Val

<210> 149

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 149

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<210> 150

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 150

ggctcataca aaataccact aggg 24

<210> 151

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 151

gggcctccac cgctgtgaag ggcgggtgga ggtggaacag aaaggccagt 50



<210> 152  
<211> 1427  
<212> DNA  
<213> Homo Sapien

<400> 152

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ccctagaaga gctcatcaga gaacttaccg cttctcatgc caccaagggtg 400  
cagacacaca agccttactt ggtgacctc gacctcacag actctggggc 450  
catagttgca gcagcagctg agatcctgca gtgctttggc tatgtcgaca 500  
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acagtggatg tggacaagag ggtcatggag acaaactact ttggcccagt 600  
tgctctaacg aaagcactcc tgccctccat gatcaagagg aggcaaggcc 650  
acattgtcgc catcagcagc atccaggga agatgagcat tccttttcga 700  
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gcgtgccgag atggaacagt atgaaattga ggtgaccgtc atcagccccg 800  
gctacatcca caccaacctc tctgtaaatg ccatcaccgc ggatggatct 850  
aggatggag ttatggacac caccacagcc cagggccgaa gccctgtgga 900  
ggtggcccag gatgttcttg ctgctgtggg gaagaagaag aaagatgtga 950  
tcctggctga cttactgcct tccttggtg tttatcttcg aactctggct 1000  
cctgggctct tcttcagcct catggcctcc agggccagaa aagagcggaa 1050  
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tttaatggag atttgtctca caagtgggaa agactgaaga aacacatctc 1200  
gtgcagatct gctggcagag gacaatcaaa aacgacaaca agcttcttcc 1250  
cagggtgagg ggaacactt aaggaataaa tatggagctg gggtttaaca 1300  
ctaaaaacta gaaataaaca tctcaaacag taiaaaaaaa aaaaaagggc 1350  
ggccgcgact ctagagtcga cctgcagaag cttggccgcc atggcccaac 1400  
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<210> 153  
 <211> 310  
 <212> PRT  
 <213> Homo Sapien

<400> 153

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 Gly Lys Ala Tyr Leu Arg Asn Ala Val Val Val Ile Thr Gly Ala  
 35 40 45  
 Thr Ser Gly Leu Gly Lys Glu Cys Ala Lys Val Phe Tyr Ala Ala  
 50 55 60  
 Gly Ala Lys Leu Val Leu Cys Gly Arg Asn Gly Gly Ala Leu Glu  
 65 70 75  
 Glu Leu Ile Arg Glu Leu Thr Ala Ser His Ala Thr Lys Val Gln  
 80 85 90  
 Thr His Lys Pro Tyr Leu Val Thr Phe Asp Leu Thr Asp Ser Gly  
 95 100 105  
 Ala Ile Val Ala Ala Ala Glu Ile Leu Gln Cys Phe Gly Tyr  
 110 115 120  
 Val Asp Ile Leu Val Asn Asn Ala Gly Ile Ser Tyr Arg Gly Thr  
 125 130 135  
 Ile Met Asp Thr Thr Val Asp Val Asp Lys Arg Val Met Glu Thr  
 140 145 150  
 Asn Tyr Phe Gly Pro Val Ala Leu Thr Lys Ala Leu Leu Pro Ser  
 155 160 165  
 Met Ile Lys Arg Arg Gln Gly His Ile Val Ala Ile Ser Ser Ile  
 170 175 180  
 Gln Gly Lys Met Ser Ile Pro Phe Arg Ser Ala Tyr Ala Ala Ser  
 185 190 195  
 Lys His Ala Thr Gln Ala Phe Phe Asp Cys Leu Arg Ala Glu Met  
 200 205 210  
 Glu Gln Tyr Glu Ile Glu Val Thr Val Ile Ser Pro Gly Tyr Ile  
 215 220 225  
 His Thr Asn Leu Ser Val Asn Ala Ile Thr Ala Asp Gly Ser Arg  
 230 235 240  
 Tyr Gly Val Met Asp Thr Thr Thr Ala Gln Gly Arg Ser Pro Val  
 245 250 255  
 Glu Val Ala Gln Asp Val Leu Ala Ala Val Gly Lys Lys Lys Lys  
 260 265 270  
 Asp Val Ile Leu Ala Asp Leu Leu Pro Ser Leu Ala Val Tyr Leu  
 275 280 285

Arg Thr Leu Ala Pro Gly Leu Phe Phe Ser Leu Met Ala Ser Arg  
290 295 300

Ala Arg Lys Glu Arg Lys Ser Lys Asn Ser  
305 310

<210> 154  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 154  
ggtgctaaac tggctgcttg tggc 24

<210> 155  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 155  
cagggcaaga tgagcattcc 20

<210> 156  
<211> 24  
<212> DNA  
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<220>  
<223> Synthetic Oligonucleotide Probe

<400> 156  
tcatactggt ccattctcggc acgc 24

<210> 157  
<211> 50  
<212> DNA  
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<220>  
<223> Synthetic Oligonucleotide Probe

<400> 157  
aatggtgggg ccctagaaga gctcatcaga gaactcaccg cttctcatgc 50

<210> 158  
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<212> DNA  
<213> Homo Sapien

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agtggtaaaa aaaaaaaaaa acacaccaa cgctcgcagc cacaaaagg 100  
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ctccctagag tccttcgtga agctttttat tcctaagagg agaaaatcag 200  
tcaccggcga aatcgtgctg attacaggag ctgggcatgg aattgggaga 250  
ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300  
tataaataag catggactgg aggaaacagc tgccaaatgc aagggactgg 350  
gtgccaaggt tcataccttt gtggtagact gcagcaaccg agaagatatt 400  
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tctaatagtg ccagaatttt aatgtttgaa cttctgtttt ttctaattat 1100  
ccccatttct tcaatatcat ttttgaggct ttggcagtct tcatttacta 1150  
ccacttggtc tttagccaaa agctgattac atatgatata aacagagaaa 1200  
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aaaatttgta ccataaccgt ttatttaaca tatattttta ttttgattg 1350  
cacttaaatt ttgtataatt tgtgtttctt tttctgttct acataaaatc 1400  
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gcacaggga gctagagggt gatacacgtg ttgcaagtat aaaagcatca 1600  
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aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1750

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<210> 159

<211> 300

<212> PRT

<213> Homo Sapien

<400> 159

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          20          25          30
Arg Lys Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly
          35          40          45
His Gly Ile Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys
          50          55          60
Ser Lys Leu Val Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu
          65          70          75
Thr Ala Ala Lys Cys Lys Gly Leu Gly Ala Lys Val His Thr Phe
          80          85          90
Val Val Asp Cys Ser Asn Arg Glu Asp Ile Tyr Ser Ser Ala Lys
          95          100          105
Lys Val Lys Ala Glu Ile Gly Asp Val Ser Ile Leu Val Asn Asn
          110          115          120
Ala Gly Val Val Tyr Thr Ser Asp Leu Phe Ala Thr Gln Asp Pro
          125          130          135
Gln Ile Glu Lys Thr Phe Glu Val Asn Val Leu Ala His Phe Trp
          140          145          150
Thr Thr Lys Ala Phe Leu Pro Ala Met Thr Lys Asn Asn His Gly
          155          160          165
His Ile Val Thr Val Ala Ser Ala Ala Gly His Val Ser Val Pro
          170          175          180
Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala Val Gly Phe
          185          190          195
His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile Thr Gly
          200          205          210
Val Lys Thr Thr Cys Leu Cys Pro Asn Phe Val Asn Thr Gly Phe
          215          220          225
Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu
          230          235          240
Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys
          245          250          255
Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu
          260          265          270

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P1618P2C2.txt

Arg	Ile	Leu	Pro	Glu	Arg	Phe	Leu	Ala	Val	Leu	Lys	Arg	Lys	Ile
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Ser	Val	Lys	Phe	Asp	Ala	Val	Ile	Gly	Tyr	Lys	Met	Lys	Ala	Gln
				290					295					300

<210> 160  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 160  
 ggtgaaggca gaaattggag atg 23

<210> 161  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 161  
 atcccatgca tcagcctggt tacc 24

<210> 162  
 <211> 48  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 162  
 gctggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

<210> 163  
 <211> 2076  
 <212> DNA  
 <213> Homo Sapien

<400> 163  
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 ttggtgccat gtggaagggtg attgtttcgc tggctcctggt gatgcctggc 150  
 ccctgtgatg ggctgtttcg ctccctatac agaagtgttt ccatgccacc 200  
 taagggagac tcaggacagc cattatttct cacccttac attgaagctg 250  
 ggaagatcca aaaaggaaga gaattgagtt tggctcgccc tttcccagga 300  
 ctgaacatga agagttatgc cggcttcctc accgtgaata agacttaca 350  
 cagcaacctc ttcttctggt tcttcccagc tcagatacag ccagaagatg 400  
 cccagtagt tctctggcta cagggtgggc cgggaggttc atccatgttt 450

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acaatccagt gggcacaggc ttcagtttta ctgatgatac ccacggatat 600  
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tccctcaacc ctgtgagaga ggtgaagatc aacctgaacg gaattgctat 800  
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aagtttgga tgccgtgaag gtgtttggaa atattattgg ataagaatag 1950  
ctcaattatc ccaaataaat ggatgaagct ataatagttt tggggaaaag 2000  
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tattatatat aaaagtaaaa aaaaaa 2076

&lt;210&gt; 164

&lt;211&gt; 476

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 164

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20 25 30Val Ser Met Pro Pro Lys Gly Asp Ser Gly Gln Pro Leu Phe Leu  
35 40 45Thr Pro Tyr Ile Glu Ala Gly Lys Ile Gln Lys Gly Arg Glu Leu  
50 55 60Ser Leu Val Gly Pro Phe Pro Gly Leu Asn Met Lys Ser Tyr Ala  
65 70 75Gly Phe Leu Thr Val Asn Lys Thr Tyr Asn Ser Asn Leu Phe Phe  
80 85 90Trp Phe Phe Pro Ala Gln Ile Gln Pro Glu Asp Ala Pro Val Val  
95 100 105Leu Trp Leu Gln Gly Gly Pro Gly Gly Ser Ser Met Phe Gly Leu  
110 115 120Phe Val Glu His Gly Pro Tyr Val Val Thr Ser Asn Met Thr Leu  
125 130 135Arg Asp Arg Asp Phe Pro Trp Thr Thr Thr Leu Ser Met Leu Tyr  
140 145 150Ile Asp Asn Pro Val Gly Thr Gly Phe Ser Phe Thr Asp Asp Thr  
155 160 165His Gly Tyr Ala Val Asn Glu Asp Asp Val Ala Arg Asp Leu Tyr  
170 175 180Ser Ala Leu Ile Gln Phe Phe Gln Ile Phe Pro Glu Tyr Lys Asn  
185 190 195Asn Asp Phe Tyr Val Thr Gly Glu Ser Tyr Ala Gly Lys Tyr Val  
200 205 210Pro Ala Ile Ala His Leu Ile His Ser Leu Asn Pro Val Arg Glu  
215 220 225Val Lys Ile Asn Leu Asn Gly Ile Ala Ile Gly Asp Gly Tyr Ser  
230 235 240Asp Pro Glu Ser Ile Ile Gly Gly Tyr Ala Glu Phe Leu Tyr Gln  
245 250 255Ile Gly Leu Leu Asp Glu Lys Gln Lys Lys Tyr Phe Gln Lys Gln  
260 265 270



P1618P2C2.txt

Cys His Glu Cys Ile Glu His Ile Arg Lys Gln Asn Trp Phe Glu  
 275 280 285  
 Ala Phe Glu Ile Leu Asp Lys Leu Leu Asp Gly Asp Leu Thr Ser  
 290 295 300  
 Asp Pro Ser Tyr Phe Gln Asn Val Thr Gly Cys Ser Asn Tyr Tyr  
 305 310 315  
 Asn Phe Leu Arg Cys Thr Glu Pro Glu Asp Gln Leu Tyr Tyr Val  
 320 325 330  
 Lys Phe Leu Ser Leu Pro Glu Val Arg Gln Ala Ile His Val Gly  
 335 340 345  
 Asn Gln Thr Phe Asn Asp Gly Thr Ile Val Glu Lys Tyr Leu Arg  
 350 355 360  
 Glu Asp Thr Val Gln Ser Val Lys Pro Trp Leu Thr Glu Ile Met  
 365 370 375  
 Asn Asn Tyr Lys Val Leu Ile Tyr Asn Gly Gln Leu Asp Ile Ile  
 380 385 390  
 Val Ala Ala Ala Leu Thr Glu Arg Ser Leu Met Gly Met Asp Trp  
 395 400 405  
 Lys Gly Ser Gln Glu Tyr Lys Lys Ala Glu Lys Lys Val Trp Lys  
 410 415 420  
 Ile Phe Lys Ser Asp Ser Glu Val Ala Gly Tyr Ile Arg Gln Ala  
 425 430 435  
 Gly Asp Phe His Gln Val Ile Ile Arg Gly Gly Gly His Ile Leu  
 440 445 450  
 Pro Tyr Asp Gln Pro Leu Arg Ala Phe Asp Met Ile Asn Arg Phe  
 455 460 465  
 Ile Tyr Gly Lys Gly Trp Asp Pro Tyr Val Gly  
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<210> 165

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 165

ttccatgccca cctaagggag actc 24

<210> 166

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 166

tgcatgaggt gtgcaatggc tggc 24

P1618P2C2.txt

<210> 167  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 167  
 agctctcaga ggctggcatc aggg 24

<210> 168  
 <211> 50  
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 <213> Artificial Sequence

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 <223> Synthetic Oligonucleotide Probe

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<210> 169  
 <211> 2477  
 <212> DNA  
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ttaagaaggt acatctgcaa aagcaaa 2477

&lt;210&gt; 170

&lt;211&gt; 552

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 170

```

Met Gly Thr Leu Gly Gln Ala Ser Leu Phe Ala Pro Pro Gly Asn
 1           5           10           15
Tyr Phe Trp Ser Asp His Ser Ala Leu Cys Phe Ala Glu Ser Cys
          20           25           30
Glu Gly Gln Pro Gly Lys Val Glu Gln Met Ser Thr His Arg Ser
          35           40           45
Arg Leu Leu Thr Ala Ala Pro Leu Ser Met Glu Gln Arg Gln Pro
          50           55           60
Trp Pro Arg Ala Leu Glu Val Asp Ser Arg Ser Val Val Leu Leu
          65           70           75
Ser Val Val Trp Val Leu Leu Ala Pro Pro Ala Ala Gly Met Pro
          80           85           90
Gln Phe Ser Thr Phe His Ser Glu Asn Arg Asp Trp Thr Phe Asn
          95           100          105
His Leu Thr Val His Gln Gly Thr Gly Ala Val Tyr Val Gly Ala
          110          115          120
Ile Asn Arg Val Tyr Lys Leu Thr Gly Asn Leu Thr Ile Gln Val
          125          130          135
Ala His Lys Thr Gly Pro Glu Glu Asp Asn Lys Ser Arg Tyr Pro
          140          145          150
Pro Leu Ile Val Gln Pro Cys Ser Glu Val Leu Thr Leu Thr Asn
          155          160          165
Asn Val Asn Lys Leu Leu Ile Ile Asp Tyr Ser Glu Asn Arg Leu
          170          175          180
Leu Ala Cys Gly Ser Leu Tyr Gln Gly Val Cys Lys Leu Leu Arg
          185          190          195
Leu Asp Asp Leu Phe Ile Leu Val Glu Pro Ser His Lys Lys Glu
          200          205          210
His Tyr Leu Ser Ser Val Asn Lys Thr Gly Thr Met Tyr Gly Val
          215          220          225
Ile Val Arg Ser Glu Gly Glu Asp Gly Lys Leu Phe Ile Gly Thr
          230          235          240
Ala Val Asp Gly Lys Gln Asp Tyr Phe Pro Thr Leu Ser Ser Arg
          245          250          255
Lys Leu Pro Arg Asp Pro Glu Ser Ser Ala Met Leu Asp Tyr Glu
          260          265          270

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P1618P2C2.txt

Leu His Ser Asp Phe Val Ser Ser Leu Ile Lys Ile Pro Ser Asp  
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Thr Leu Ala Leu Val Ser His Phe Asp Ile Phe Tyr Ile Tyr Gly  
290 295 300

Phe Ala Ser Gly Gly Phe Val Tyr Phe Leu Thr Val Gln Pro Glu  
305 310 315

Thr Pro Glu Gly Val Ala Ile Asn Ser Ala Gly Asp Leu Phe Tyr  
320 325 330

Thr Ser Arg Ile Val Arg Leu Cys Lys Asp Asp Pro Lys Phe His  
335 340 345

Ser Tyr Val Ser Leu Pro Phe Gly Cys Thr Arg Ala Gly Val Glu  
350 355 360

Tyr Arg Leu Leu Gln Ala Ala Tyr Leu Ala Lys Pro Gly Asp Ser  
365 370 375

Leu Ala Gln Ala Phe Asn Ile Thr Ser Gln Asp Asp Val Leu Phe  
380 385 390

Ala Ile Phe Ser Lys Gly Gln Lys Gln Tyr His His Pro Pro Asp  
395 400 405

Asp Ser Ala Leu Cys Ala Phe Pro Ile Arg Ala Ile Asn Leu Gln  
410 415 420

Ile Lys Glu Arg Leu Gln Ser Cys Tyr Gln Gly Glu Gly Asn Leu  
425 430 435

Glu Leu Asn Trp Leu Leu Gly Lys Asp Val Gln Cys Thr Lys Ala  
440 445 450

Pro Val Pro Ile Asp Asp Asn Phe Cys Gly Leu Asp Ile Asn Gln  
455 460 465

Pro Leu Gly Gly Ser Thr Pro Val Glu Gly Leu Thr Leu Tyr Thr  
470 475 480

Thr Ser Arg Asp Arg Met Thr Ser Val Ala Ser Tyr Val Tyr Asn  
485 490 495

Gly Tyr Ser Val Val Phe Val Gly Thr Lys Ser Gly Lys Leu Lys  
500 505 510

Lys Val Arg Val Tyr Glu Phe Arg Cys Ser Asn Ala Ile His Leu  
515 520 525

Leu Ser Lys Glu Ser Leu Leu Glu Gly Ser Tyr Trp Trp Arg Phe  
530 535 540

Asn Tyr Arg Gln Leu Tyr Phe Leu Gly Glu Gln Arg  
545 550

<210> 171

<211> 20

<212> DNA

<213> Artificial Sequence

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<223> Synthetic oligonucleotide Probe

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<210> 172  
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<400> 172  
cttctgccct ttggagaaga tggc 24

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<222> 1683  
<223> unknown base

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ccgcacgctg ggactcctgc tgctggtcgt cttgggcttc ctggtgctcc 150  
gcaggctgga ctggagcacc ctggtccctc tgcggctccg ccatcgacag 200  
ctggggctgc aggccaaggg ctggaacttc atgctggagg attccacctt 250  
ctggatcttc gggggctcca tccactattt ccgtgtgccc agggagtact 300

ggagggaccg cctgctgaag atgaaggcct gtggcttgaa caccctcacc 350  
acctatgttc cgtggaacct gcatgagcca gaaagaggca aatttgactt 400  
ctctgggaac ctggacctgg aggccttcgt cctgatggcc gcagagatcg 450  
ggctgtgggt gattctgcgt ccaggcccct acatctgcag tgagatggac 500  
ctcgggggct tgcccagctg gctactccaa gaccctggca tgaggctgag 550  
gacaacttac aagggttca ccgaagcagt ggacctttat tttgaccacc 600  
tgatgtccag ggtggtgcc a tccagtaca agcgtggggg acctatcatt 650

gccgtgcagg tggagaatga atatggttcc tataataaag accccgcata 700  
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 tcacaa 3106

&lt;210&gt; 175

&lt;211&gt; 636

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;220&gt;

&lt;221&gt; unsure

&lt;222&gt; 539

&lt;223&gt; unknown amino acid

&lt;400&gt; 175

Met	Thr	Thr	Trp	Ser	Leu	Arg	Arg	Arg	Pro	Ala	Arg	Thr	Leu	Gly
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Leu	Leu	Leu	Leu	Val	Val	Leu	Gly	Phe	Leu	Val	Leu	Arg	Arg	Leu
				20					25					30
Asp	Trp	Ser	Thr	Leu	Val	Pro	Leu	Arg	Leu	Arg	His	Arg	Gln	Leu
				35					40					45
Gly	Leu	Gln	Ala	Lys	Gly	Trp	Asn	Phe	Met	Leu	Glu	Asp	Ser	Thr
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Phe	Trp	Ile	Phe	Gly	Gly	Ser	Ile	His	Tyr	Phe	Arg	Val	Pro	Arg
				65					70					75



P1618P2C2.txt

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 Arg Gly Lys Phe Asp Phe Ser Gly Asn Leu Asp Leu Glu Ala Phe  
 110 115 120  
 Val Leu Met Ala Ala Glu Ile Gly Leu Trp Val Ile Leu Arg Pro  
 125 130 135  
 Gly Pro Tyr Ile Cys Ser Glu Met Asp Leu Gly Gly Leu Pro Ser  
 140 145 150  
 Trp Leu Leu Gln Asp Pro Gly Met Arg Leu Arg Thr Thr Tyr Lys  
 155 160 165  
 Gly Phe Thr Glu Ala Val Asp Leu Tyr Phe Asp His Leu Met Ser  
 170 175 180  
 Arg Val Val Pro Leu Gln Tyr Lys Arg Gly Gly Pro Ile Ile Ala  
 185 190 195  
 Val Gln Val Glu Asn Glu Tyr Gly Ser Tyr Asn Lys Asp Pro Ala  
 200 205 210  
 Tyr Met Pro Tyr Val Lys Lys Ala Leu Glu Asp Arg Gly Ile Val  
 215 220 225  
 Glu Leu Leu Leu Thr Ser Asp Asn Lys Asp Gly Leu Ser Lys Gly  
 230 235 240  
 Ile Val Gln Gly Val Leu Ala Thr Ile Asn Leu Gln Ser Thr His  
 245 250 255  
 Glu Leu Gln Leu Leu Thr Thr Phe Leu Phe Asn Val Gln Gly Thr  
 260 265 270  
 Gln Pro Lys Met Val Met Glu Tyr Trp Thr Gly Trp Phe Asp Ser  
 275 280 285  
 Trp Gly Gly Pro His Asn Ile Leu Asp Ser Ser Glu Val Leu Lys  
 290 295 300  
 Thr Val Ser Ala Ile Val Asp Ala Gly Ser Ser Ile Asn Leu Tyr  
 305 310 315  
 Met Phe His Gly Gly Thr Asn Phe Gly Phe Met Asn Gly Ala Met  
 320 325 330  
 His Phe His Asp Tyr Lys Ser Asp Val Thr Ser Tyr Asp Tyr Asp  
 335 340 345  
 Ala Val Leu Thr Glu Ala Gly Asp Tyr Thr Ala Lys Tyr Met Lys  
 350 355 360  
 Leu Arg Asp Phe Phe Gly Ser Ile Ser Gly Ile Pro Leu Pro Pro  
 365 370 375  
 Pro Pro Asp Leu Leu Pro Lys Met Pro Tyr Glu Pro Leu Thr Pro  
 380 385 390

P1618P2C2.txt

Val Leu Tyr Leu Ser Leu Trp Asp Ala Leu Lys Tyr Leu Gly Glu  
395 400 405  
Pro Ile Lys Ser Glu Lys Pro Ile Asn Met Glu Asn Leu Pro Val  
410 415 420  
Asn Gly Gly Asn Gly Gln Ser Phe Gly Tyr Ile Leu Tyr Glu Thr  
425 430 435  
Ser Ile Thr Ser Ser Gly Ile Leu Ser Gly His Val His Asp Arg  
440 445 450  
Gly Gln Val Phe Val Asn Thr Val Ser Ile Gly Phe Leu Asp Tyr  
455 460 465  
Lys Thr Thr Lys Ile Ala Val Pro Leu Ile Gln Gly Tyr Thr Val  
470 475 480  
Leu Arg Ile Leu Val Glu Asn Arg Gly Arg Val Asn Tyr Gly Glu  
485 490 495  
Asn Ile Asp Asp Gln Arg Lys Gly Leu Ile Gly Asn Leu Tyr Leu  
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Asn Asp Ser Pro Leu Lys Asn Phe Arg Ile Tyr Ser Leu Asp Met  
515 520 525  
Lys Lys Ser Phe Phe Gln Arg Phe Gly Leu Asp Lys Trp Xaa Ser  
530 535 540  
Leu Pro Glu Thr Pro Thr Leu Pro Ala Phe Phe Leu Gly Ser Leu  
545 550 555  
Ser Ile Ser Ser Thr Pro Cys Asp Thr Phe Leu Lys Leu Glu Gly  
560 565 570  
Trp Glu Lys Gly Val Val Phe Ile Asn Gly Gln Asn Leu Gly Arg  
575 580 585  
Tyr Trp Asn Ile Gly Pro Gln Lys Thr Leu Tyr Leu Pro Gly Pro  
590 595 600  
Trp Leu Ser Ser Gly Ile Asn Gln Val Ile Val Phe Glu Glu Thr  
605 610 615  
Met Ala Gly Pro Ala Leu Gln Phe Thr Glu Thr Pro His Leu Gly  
620 625 630  
Arg Asn Gln Tyr Ile Lys  
635

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<213> Homo Sapien

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ggtcccagga ccctggtgag ggttctctac ttggccttcg gtgggggtca 100  
agacgcaggc acctacgcca aaggggagca aagccgggct cggcccagg 150  
Page 110

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ctgtccgccg tctcagacta gaggagcgct gtaaaccgcca tggctcccaa 250  
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P1618P2C2.txt

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<210> 177  
 <211> 654  
 <212> PRT  
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<400> 177

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Leu	Ser	Leu	Thr	Leu	Leu	Leu	Pro	Gln	Ala	Asp	Thr	Arg	Ser	Phe
				20					25					30
Val	Val	Asp	Arg	Gly	His	Asp	Arg	Phe	Leu	Leu	Asp	Gly	Ala	Pro
				35					40					45
Phe	Arg	Tyr	Val	Ser	Gly	Ser	Leu	His	Tyr	Phe	Arg	Val	Pro	Arg
				50					55					60
Val	Leu	Trp	Ala	Asp	Arg	Leu	Leu	Lys	Met	Arg	Trp	Ser	Gly	Leu
				65					70					75
Asn	Ala	Ile	Gln	Phe	Tyr	Val	Pro	Trp	Asn	Tyr	His	Glu	Pro	Gln
				80					85					90
Pro	Gly	Val	Tyr	Asn	Phe	Asn	Gly	Ser	Arg	Asp	Leu	Ile	Ala	Phe
				95					100					105
Leu	Asn	Glu	Ala	Ala	Leu	Ala	Asn	Leu	Leu	Val	Ile	Leu	Arg	Pro
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P1618P2C2.txt

Gly Pro Tyr Ile	Cys Ala Glu Trp Glu Met Gly Gly Leu Pro Ser	125	130	135
Trp Leu Leu Arg	Lys Pro Glu Ile His Leu Arg Thr Ser Asp Pro	140	145	150
Asp Phe Leu Ala	Ala Val Asp Ser Trp Phe Lys Val Leu Leu Pro	155	160	165
Lys Ile Tyr Pro	Trp Leu Tyr His Asn Gly Gly Asn Ile Ile Ser	170	175	180
Ile Gln Val Glu	Asn Glu Tyr Gly Ser Tyr Arg Ala Cys Asp Phe	185	190	195
Ser Tyr Met Arg	His Leu Ala Gly Leu Phe Arg Ala Leu Leu Gly	200	205	210
Glu Lys Ile Leu	Leu Phe Thr Thr Asp Gly Pro Glu Gly Leu Lys	215	220	225
Cys Gly Ser Leu	Arg Gly Leu Tyr Thr Thr Val Asp Phe Gly Pro	230	235	240
Ala Asp Asn Met	Thr Lys Ile Phe Thr Leu Leu Arg Lys Tyr Glu	245	250	255
Pro His Gly Pro	Leu Val Asn Ser Glu Tyr Tyr Thr Gly Trp Leu	260	265	270
Asp Tyr Trp Gly	Gln Asn His Ser Thr Arg Ser Val Ser Ala Val	275	280	285
Thr Lys Gly Leu	Glu Asn Met Leu Lys Leu Gly Ala Ser Val Asn	290	295	300
Met Tyr Met Phe	His Gly Gly Thr Asn Phe Gly Tyr Trp Asn Gly	305	310	315
Ala Asp Lys Lys	Gly Arg Phe Leu Pro Ile Thr Thr Ser Tyr Asp	320	325	330
Tyr Asp Ala Pro	Ile Ser Glu Ala Gly Asp Pro Thr Pro Lys Leu	335	340	345
Phe Ala Leu Arg	Asp Val Ile Ser Lys Phe Gln Glu Val Pro Leu	350	355	360
Gly Pro Leu Pro	Pro Pro Ser Pro Lys Met Met Leu Gly Pro Val	365	370	375
Thr Leu His Leu	Val Gly His Leu Leu Ala Phe Leu Asp Leu Leu	380	385	390
Cys Pro Arg Gly	Pro Ile His Ser Ile Leu Pro Met Thr Phe Glu	395	400	405
Ala Val Lys Gln	Asp His Gly Phe Met Leu Tyr Arg Thr Tyr Met	410	415	420
Thr His Thr Ile	Phe Glu Pro Thr Pro Phe Trp Val Pro Asn Asn	425	430	435

P1618P2C2.txt

Gly Val His Asp	Arg	Ala Tyr Val Met	Val Asp Gly Val Phe	Gln
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Gly Val Val Glu	Arg	Asn Met Arg Asp	Lys Leu Phe Leu Thr	Gly
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Lys Leu Gly Ser	Lys	Leu Asp Ile Leu	Val Glu Asn Met Gly	Arg
	470		475	480
Leu Ser Phe Gly	Ser	Asn Ser Ser Asp	Phe Lys Gly Leu Leu	Lys
	485		490	495
Pro Pro Ile Leu	Gly	Gln Thr Ile Leu	Thr Gln Trp Met Met	Phe
	500		505	510
Pro Leu Lys Ile	Asp	Asn Leu Val Lys	Trp Trp Phe Pro Leu	Gln
	515		520	525
Leu Pro Lys Trp	Pro	Tyr Pro Gln Ala	Pro Ser Gly Pro Thr	Phe
	530		535	540
Tyr Ser Lys Thr	Phe	Pro Ile Leu Gly	Ser Val Gly Asp Thr	Phe
	545		550	555
Leu Tyr Leu Pro	Gly	Trp Thr Lys Gly	Gln Val Trp Ile Asn	Gly
	560		565	570
Phe Asn Leu Gly	Arg	Tyr Trp Thr Lys	Gln Gly Pro Gln Gln	Thr
	575		580	585
Leu Tyr Val Pro	Arg	Phe Leu Leu Phe	Pro Arg Gly Ala Leu	Asn
	590		595	600
Lys Ile Thr Leu	Leu	Glu Leu Glu Asp	Val Pro Leu Gln Pro	Gln
	605		610	615
Val Gln Phe Leu	Asp	Lys Pro Ile Leu	Asn Ser Thr Ser Thr	Leu
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His Arg Thr His	Ile	Asn Ser Leu Ser	Ala Asp Thr Leu Ser	Ala
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Ser Glu Pro Met	Glu	Leu Ser Gly His		
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<211> 24

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<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 178

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<210> 179

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Oligonucleotide Probe

<400> 179

tggacaaatc cccttgctca gccc 24

<210> 180

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Oligonucleotide Probe

<400> 180

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<210> 181

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 181

ccagctatga ctatgatgca cc 22

<210> 182

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Oligonucleotide Probe

<400> 182

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<210> 183

<211> 50

<212> DNA

<213> Artificial Sequence

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<223> Synthetic Oligonucleotide Probe

<400> 183

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<210> 184

<211> 1947

<212> DNA

<213> Homo Sapien

<400> 184

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gtatttgagt gcaccacaa tatggcttac atgttgaaaa agcttctcat 100

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tcttctgggtt attcaggata cctttgaagg aatattcttt cgaaaaagtc 200

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gttcctttctt cacatggttag accagtatga ccagctatat tccaagcgtt 300  
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tgatgaatgt cgctgagctg gaactccaga actgtgagct agagagaatc 950  
ccacatgcta ttttcagcct ctctaattta caggaactgg atttaaagtc 1000  
caataacatt cgcacaattg aggaaatcat cagtttccag catttaaaac 1050  
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tctattacc atgtcaaaaa cttggagtca ctttatttct ctaacaacaa 1150  
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<211> 501

<212> PRT

<213> Homo Sapien

<400> 185

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 425 430 435  
 Lys Val Gly Gln Leu Ser Gln Leu Thr Gln Leu Glu Leu Lys Gly  
 440 445 450  
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 455 460 465  
 Leu Lys Lys Ser Gly Leu Val Val Glu Asp His Leu Phe Asp Thr  
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 <211> 607  
 <212> PRT  
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 Thr Ile Glu Arg Pro Glu Asn Lys Ser Ile Arg Ile Ile Phe Ser  
 65 70 75  
 Tyr Val Gln Leu Asp Pro Asp Gly Ser Cys Glu Ser Glu Asn Ile  
 80 85 90  
 Lys Val Phe Asp Gly Thr Ser Ser Asn Gly Pro Leu Leu Gly Gln  
 95 100 105  
 Val Cys Ser Lys Asn Asp Tyr Val Pro Val Phe Glu Ser Ser Ser  
 110 115 120  
 Ser Thr Leu Thr Phe Gln Ile Val Thr Asp Ser Ala Arg Ile Gln  
 125 130 135  
 Arg Thr Val Phe Val Phe Tyr Tyr Phe Phe Ser Pro Asn Ile Ser  
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 Ile Pro Asn Cys Gly Gly Tyr Leu Asp Thr Leu Glu Gly Ser Phe  
 155 160 165  
 Thr Ser Pro Asn Tyr Pro Lys Pro His Pro Glu Leu Ala Tyr Cys  
 170 175 180  
 Val Trp His Ile Gln Val Glu Lys Asp Tyr Lys Ile Lys Leu Asn  
 Page 121

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190

195

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 Val Glu Phe Ser Val Pro Leu Asn Gly Cys Gly Thr Ile Arg Lys  
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 Glu Lys Thr Ile Leu Glu Ser Pro Tyr Tyr Val Asp Leu Asn Gln  
 410 415 420  
 Thr Leu Phe Val Gln Val Ser Leu His Thr Ser Asp Pro Asn Leu  
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 Val Val Phe Leu Asp Thr Cys Arg Ala Ser Pro Thr Ser Asp Phe  
 440 445 450  
 Ala Ser Pro Thr Tyr Asp Leu Ile Lys Ser Gly Cys Ser Arg Asp  
 455 460 465  
 Glu Thr Cys Lys Val Tyr Pro Leu Phe Gly His Tyr Gly Arg Phe  
 470 475 480  
 Gln Phe Asn Ala Phe Lys Phe Leu Arg Ser Met Ser Ser Val Tyr  
 485 490 495  
 Leu Gln Cys Lys Val Leu Ile Cys Asp Ser Ser Asp His Gln Ser

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Ser Tyr Lys Trp	Lys Thr Asp Ser Ile	Ile Gly Pro Ile Arg	Leu	
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Lys Arg Asp Arg	Ser Ala Ser Gly Asn	Ser Gly Phe Gln His	Glu	
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Thr His Ala Glu	Glu Thr Pro Asn Gln	Pro Phe Asn Ser Val	His	
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Leu Phe Ser Phe	Met Val Leu Ala Leu	Asn Val Val Thr Val	Ala	
	575	580		585
Thr Ile Thr Val	Arg His Phe Val Asn	Gln Arg Ala Asp Tyr	Lys	
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Tyr Gln Lys Leu	Gln Asn Tyr			
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&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 191

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&lt;210&gt; 192

&lt;211&gt; 22

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 192

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&lt;210&gt; 193

&lt;211&gt; 47

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 193

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&lt;210&gt; 194

&lt;211&gt; 2362

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;400&gt; 194

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&lt;210&gt; 195

&lt;211&gt; 467

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 195

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 35 40 45  
 Leu Pro Ala Trp Phe Asp Gln Ala Lys Phe Gly Ile Phe Ile His  
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 Trp Gly Val Phe Ser Val Pro Ser Phe Gly Ser Glu Trp Phe Trp  
 65 70 75  
 Trp Tyr Trp Gln Lys Glu Lys Ile Pro Lys Tyr Val Glu Phe Met  
 80 85 90  
 Lys Asp Asn Tyr Pro Pro Ser Phe Lys Tyr Glu Asp Phe Gly Pro  
 95 100 105  
 Leu Phe Thr Ala Lys Phe Phe Asn Ala Asn Gln Trp Ala Asp Ile  
 110 115 120  
 Phe Gln Ala Ser Gly Ala Lys Tyr Ile Val Leu Thr Ser Lys His  
 Page 125

125

130

135

His Glu Gly Phe Thr Leu Trp Gly Ser Glu Tyr Ser Trp Asn Trp  
 140 145 150

Asn Ala Ile Asp Glu Gly Pro Lys Arg Asp Ile Val Lys Glu Leu  
 155 160 165

Glu Val Ala Ile Arg Asn Arg Thr Asp Leu Arg Phe Gly Leu Tyr  
 170 175 180

Tyr Ser Leu Phe Glu Trp Phe His Pro Leu Phe Leu Glu Asp Glu  
 185 190 195

Ser Ser Ser Phe His Lys Arg Gln Phe Pro Val Ser Lys Thr Leu  
 200 205 210

Pro Glu Leu Tyr Glu Leu Val Asn Asn Tyr Gln Pro Glu Val Leu  
 215 220 225

Trp Ser Asp Gly Asp Gly Gly Ala Pro Asp Gln Tyr Trp Asn Ser  
 230 235 240

Thr Gly Phe Leu Ala Trp Leu Tyr Asn Glu Ser Pro Val Arg Gly  
 245 250 255

Thr Val Val Thr Asn Asp Arg Trp Gly Ala Gly Ser Ile Cys Lys  
 260 265 270

His Gly Gly Phe Tyr Thr Cys Ser Asp Arg Tyr Asn Pro Gly His  
 275 280 285

Leu Leu Pro His Lys Trp Glu Asn Cys Met Thr Ile Asp Lys Leu  
 290 295 300

Ser Trp Gly Tyr Arg Arg Glu Ala Gly Ile Ser Asp Tyr Leu Thr  
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Ile Glu Glu Leu Val Lys Gln Leu Val Glu Thr Val Ser Cys Gly  
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Ser Val Val Phe Glu Glu Arg Leu Arg Gln Val Gly Ser Trp Leu  
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Lys Val Asn Gly Glu Ala Ile Tyr Glu Thr Tyr Thr Trp Arg Ser  
 365 370 375

Gln Asn Asp Thr Val Thr Pro Asp Val Trp Tyr Thr Ser Lys Pro  
 380 385 390

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 395 400 405

Gly Gln Leu Phe Leu Gly His Pro Lys Ala Ile Leu Gly Ala Thr  
 410 415 420

Glu Val Lys Leu Leu Gly His Gly Gln Pro Leu Asn Trp Ile Ser  
 425 430 435

Leu Glu Gln Asn Gly Ile Met Val Glu Leu Pro Gln Leu Thr Ile  
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440

P1618P2C2.txt

445

450

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<210> 197  
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<400> 199  
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<212> DNA  
<213> Homo Sapien

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cctctcatat caccagtggc catctgaggt gtttcctgg ctctgaaggg 150

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gctttgaaac ttgcagctat ggctgggttg gagatggatt cgtggtcac 450  
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 aaccttaatt tattattaac atacctaaga agtacattgt tacctctata 2250  
 taccaaagca catttttaaaa gtgccattaa caaatgtatc actagccctc 2300  
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 aattaaagca tttagaaaac tt 2372

&lt;210&gt; 201

&lt;211&gt; 322

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 201

Met Ala Arg Cys Phe Ser Leu Val Leu Leu Leu Thr Ser Ile Trp  
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 Ser Ile Gln Val Ser Cys Arg Ile Met Gly Ile Thr Leu Val Ser  
 35 40 45  
 Lys Lys Ala Asn Gln Gln Leu Asn Phe Thr Glu Ala Lys Glu Ala  
 50 55 60  
 Cys Arg Leu Leu Gly Leu Ser Leu Ala Gly Lys Asp Gln Val Glu  
 65 70 75  
 Thr Ala Leu Lys Ala Ser Phe Glu Thr Cys Ser Tyr Gly Trp Val  
 80 85 90  
 Gly Asp Gly Phe Val Val Ile Ser Arg Ile Ser Pro Asn Pro Lys  
 95 100 105  
 Cys Gly Lys Asn Gly Val Gly Val Leu Ile Trp Lys Val Pro Val  
 110 115 120  
 Ser Arg Gln Phe Ala Ala Tyr Cys Tyr Asn Ser Ser Asp Thr Trp  
 125 130 135  
 Thr Asn Ser Cys Ile Pro Glu Ile Ile Thr Thr Lys Asp Pro Ile  
 140 145 150

P1618P2C2.txt

Phe Asn Thr Gln Thr Ala Thr Gln Thr Thr Glu Phe Ile Val Ser  
155 160 165  
Asp Ser Thr Tyr Ser Val Ala Ser Pro Tyr Ser Thr Ile Pro Ala  
170 175 180  
Pro Thr Thr Thr Pro Pro Ala Pro Ala Ser Thr Ser Ile Pro Arg  
185 190 195  
Arg Lys Lys Leu Ile Cys Val Thr Glu Val Phe Met Glu Thr Ser  
200 205 210  
Thr Met Ser Thr Glu Thr Glu Pro Phe Val Glu Asn Lys Ala Ala  
215 220 225  
Phe Lys Asn Glu Ala Ala Gly Phe Gly Gly Val Pro Thr Ala Leu  
230 235 240  
Leu Val Leu Ala Leu Leu Phe Phe Gly Ala Ala Ala Gly Leu Gly  
245 250 255  
Phe Cys Tyr Val Lys Arg Tyr Val Lys Ala Phe Pro Phe Thr Asn  
260 265 270  
Lys Asn Gln Gln Lys Glu Met Ile Glu Thr Lys Val Val Lys Glu  
275 280 285  
Glu Lys Ala Asn Asp Ser Asn Pro Asn Glu Glu Ser Lys Lys Thr  
290 295 300  
Asp Lys Asn Pro Glu Glu Ser Lys Ser Pro Ser Lys Thr Thr Val  
305 310 315  
Arg Cys Leu Glu Ala Glu Val  
320

<210> 202  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

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gagctttcca tccaggtgtc atgc 24

<210> 203  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 203  
gtcagtgaca gtacctactc gg 22

<210> 204  
<211> 24  
<212> DNA  
<213> Artificial Sequence

P1618P2C2.txt

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 204  
tggagcagga ggagtagtag tagg 24

<210> 205  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 205  
aggaggcctg taggctgctg ggactaagtt tggccggcaa ggaccaagtt 50

<210> 206  
<211> 1620  
<212> DNA  
<213> Homo Sapien

<220>  
<221> unsure  
<222> 973, 977, 996, 1003  
<223> unknown base

<400> 206  
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tgctgccttc ctactcgtga ggaaactgcc gccgctctgc cacggtctgc 150  
ccacccaacg cgaagacggg aaccctgtg actttgactg gagagaagtg 200  
gagatcctga tgtttctcag tgccattgtg atgatgaaga accgcagatc 250  
catcactgtg gagcaacata taggcaacat ttcatgttt agtaaagtgg 300  
ccaacacaat tcttttcttc cgcttgata ttgcatggg cctactttac 350  
atcacactct gcatagtgtt cctgatgacg tgcaaaccac ccctatatat 400  
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tctaattgact gccaatcatt tgcccctatc tatgctgacc tctcccttaa 550  
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ctatcaaagg ctggagacaa tatccctgag gaggagcctg tggcttcaac 850

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 gcttgggtca gtgtgttaac tgcttatcag ctattcagac atctccatgg 1200  
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 ctaaggagaa acctttaacc acaaagtttt tatcattgaa gacaatattg 1450  
 aacaaccccc tattttgtgg ggattgagaa ggggtgaata gaggcttgag 1500  
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 aagattggga tttccttttg 1620

&lt;210&gt; 207

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 207

Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro  
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Arg Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala  
 20 25 30

Leu Leu Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu  
 35 40 45

Cys His Gly Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp  
 50 55 60

Phe Asp Trp Arg Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile  
 65 70 75

Val Met Met Lys Asn Arg Arg Ser Ile Thr Val Glu Gln His Ile  
 80 85 90

Gly Asn Ile Phe Met Phe Ser Lys Val Ala Asn Thr Ile Leu Phe  
 95 100 105

Phe Arg Leu Asp Ile Arg Met Gly Leu Leu Tyr Ile Thr Leu Cys  
 110 115 120

Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu Tyr Met Gly Pro  
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125		130		135
Glu Tyr Ile Lys	Tyr Phe Asn Asp Lys	Thr Ile Asp Glu Glu	Leu	
	140	145	150	
Glu Arg Asp Lys	Arg Val Thr Trp Ile	Val Glu Phe Phe Ala	Asn	
	155	160	165	
Trp Ser Asn Asp	Cys Gln Ser Phe Ala	Pro Ile Tyr Ala Asp	Leu	
	170	175	180	
Ser Leu Lys Tyr	Asn Cys Thr Gly Leu	Asn Phe Gly Lys Val	Asp	
	185	190	195	
Val Gly Arg Tyr	Thr Asp Val Ser Thr	Arg Tyr Lys Val Ser	Thr	
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Ser Pro Leu Thr	Lys Gln Leu Pro Thr	Leu Ile Leu Phe Gln	Gly	
	215	220	225	
Gly Lys Glu Ala	Met Arg Arg Pro Gln	Ile Asp Lys Lys Gly	Arg	
	230	235	240	
Ala Val Ser Trp	Thr Phe Ser Glu Glu	Asn Val Ile Arg Glu	Phe	
	245	250	255	
Asn Leu Asn Glu	Leu Tyr Gln Arg Ala	Lys Lys Leu Ser Lys	Ala	
	260	265	270	
Gly Asp Asn Ile	Pro Glu Glu Gln Pro	Val Ala Ser Thr Pro	Thr	
	275	280	285	
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	290	295		

&lt;210&gt; 208

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 208

gcttggatat tcgcatgggc ctac 24

&lt;210&gt; 209

&lt;211&gt; 20

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 209

tggagacaat atccctgagg 20

&lt;210&gt; 210

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Synthetic Oligonucleotide Probe

<400> 210

aacagttggc cacagcatgg cagg 24

<210> 211

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 211

ccattgatga ggaactagaa cgggacaaga gggtcacttg gattgtggag 50

<210> 212

<211> 1985

<212> DNA

<213> Homo Sapien

<400> 212

ggacagctcg cggccccga gagctctagc cgtcgaggag ctgcctgggg 50  
 acgtttgccc tggggcccca gcctggcccc ggtcaccctg gcatgaggag 100  
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 actgcccttc tacaacggct tctactactc caacagcgcc aacgaccaga 200  
 acctaggcaa cggcatggc aaagacctcc ttaatggagt gaagctggtg 250  
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 cttccgcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1900  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1950  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa 1985

<210> 213  
 <211> 360  
 <212> PRT  
 <213> Homo Sapien

<400> 213  
 Met Gly Leu Leu Leu Leu Val Pro Leu Leu Leu Pro Gly Ser  
 1 5 10 15  
 Tyr Gly Leu Pro Phe Tyr Asn Gly Phe Tyr Tyr Ser Asn Ser Ala  
 20 25 30  
 Asn Asp Gln Asn Leu Gly Asn Gly His Gly Lys Asp Leu Leu Asn  
 35 40 45  
 Gly Val Lys Leu Val Val Glu Thr Pro Glu Glu Thr Leu Phe Thr  
 50 55 60  
 Tyr Gln Gly Ala Ser Val Ile Leu Pro Cys Arg Tyr Arg Tyr Glu  
 65 70 75  
 Pro Ala Leu Val Ser Pro Arg Arg Val Arg Val Lys Trp Trp Lys  
 80 85 90

Leu Ser Glu Asn Gly Ala Pro Glu Lys Asp Val Leu Val Ala Ile  
 95 100 105  
 Gly Leu Arg His Arg Ser Phe Gly Asp Tyr Gln Gly Arg Val His  
 110 115 120  
 Leu Arg Gln Asp Lys Glu His Asp Val Ser Leu Glu Ile Gln Asp  
 125 130 135  
 Leu Arg Leu Glu Asp Tyr Gly Arg Tyr Arg Cys Glu Val Ile Asp  
 140 145 150  
 Gly Leu Glu Asp Glu Ser Gly Leu Val Glu Leu Glu Leu Arg Gly  
 155 160 165  
 Val Val Phe Pro Tyr Gln Ser Pro Asn Gly Arg Tyr Gln Phe Asn  
 170 175 180  
 Phe His Glu Gly Gln Gln Val Cys Ala Glu Gln Ala Ala Val Val  
 185 190 195  
 Ala Ser Phe Glu Gln Leu Phe Arg Ala Trp Glu Glu Gly Leu Asp  
 200 205 210  
 Trp Cys Asn Ala Gly Trp Leu Gln Asp Ala Thr Val Gln Tyr Pro  
 215 220 225  
 Ile Met Leu Pro Arg Gln Pro Cys Gly Gly Pro Gly Leu Ala Pro  
 230 235 240  
 Gly Val Arg Ser Tyr Gly Pro Arg His Arg Arg Leu His Arg Tyr  
 245 250 255  
 Asp Val Phe Cys Phe Ala Thr Ala Leu Lys Gly Arg Val Tyr Tyr  
 260 265 270  
 Leu Glu His Pro Glu Lys Leu Thr Leu Thr Glu Ala Arg Glu Ala  
 275 280 285  
 Cys Gln Glu Asp Asp Ala Thr Ile Ala Lys Val Gly Gln Leu Phe  
 290 295 300  
 Ala Ala Trp Lys Phe His Gly Leu Asp Arg Cys Asp Ala Gly Trp  
 305 310 315  
 Leu Ala Asp Gly Ser Val Arg Tyr Pro Val Val His Pro His Pro  
 320 325 330  
 Asn Cys Gly Pro Pro Glu Pro Gly Val Arg Ser Phe Gly Phe Pro  
 335 340 345  
 Asp Pro Gln Ser Arg Leu Tyr Gly Val Tyr Cys Tyr Arg Gln His  
 350 355 360

&lt;210&gt; 214

&lt;211&gt; 18

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 214

tgcttcgcta ctgccctc 18

<210> 215  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 215  
ttcccttggtg ggttgag 18

<210> 216  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 216  
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<210> 217  
<211> 18  
<212> DNA  
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<220>  
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<400> 217  
agccagtgg gaaatgcg 18

<210> 218  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 218  
tgtccaaagt acacacacct gagg 24

<210> 219  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 219  
gatgccacga tcgccaaggt gggacagctc tttgccgcct ggaag 45

<210> 220  
<211> 1503  
<212> DNA  
<213> Homo Sapien

<400> 220

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tccccagacg caggccctca tggccagggg aggggtgcacc aggcggcccc 150  
cctgagcgac gctccccatg atgacgcca cggaacttc cagtacgacc 200  
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cgcgggggac ggcgacggct ggggtgtcgt ggccgagctt cgcgctgga 350  
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actgaaactc ccctggcccc agccctctcc tgcctggcct ggcctgggac 1400  
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aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1500  
aaa 1503

<211> 328  
 <212> PRT  
 <213> Homo Sapien

<400> 221

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 1 5 10 15  
 His Gly Ala Gln Gly Lys Pro Ser Pro Asp Ala Gly Pro His Gly  
 20 25 30  
 Gln Gly Arg Val His Gln Ala Ala Pro Leu Ser Asp Ala Pro His  
 35 40 45  
 Asp Asp Ala His Gly Asn Phe Gln Tyr Asp His Glu Ala Phe Leu  
 50 55 60  
 Gly Arg Glu Val Ala Lys Glu Phe Asp Gln Leu Thr Pro Glu Glu  
 65 70 75  
 Ser Gln Ala Arg Leu Gly Arg Ile Val Asp Arg Met Asp Arg Ala  
 80 85 90  
 Gly Asp Gly Asp Gly Trp Val Ser Leu Ala Glu Leu Arg Ala Trp  
 95 100 105  
 Ile Ala His Thr Gln Gln Arg His Ile Arg Asp Ser Val Ser Ala  
 110 115 120  
 Ala Trp Asp Thr Tyr Asp Thr Asp Arg Asp Gly Arg Val Gly Trp  
 125 130 135  
 Glu Glu Leu Arg Asn Ala Thr Tyr Gly His Tyr Ala Pro Gly Glu  
 140 145 150  
 Glu Phe His Asp Val Glu Asp Ala Glu Thr Tyr Lys Lys Met Leu  
 155 160 165  
 Ala Arg Asp Glu Arg Arg Phe Arg Val Ala Asp Gln Asp Gly Asp  
 170 175 180  
 Ser Met Ala Thr Arg Glu Glu Leu Thr Ala Phe Leu His Pro Glu  
 185 190 195  
 Glu Phe Pro His Met Arg Asp Ile Val Ile Ala Glu Thr Leu Glu  
 200 205 210  
 Asp Leu Asp Arg Asn Lys Asp Gly Tyr Val Gln Val Glu Glu Tyr  
 215 220 225  
 Ile Ala Asp Leu Tyr Ser Ala Glu Pro Gly Glu Glu Glu Pro Ala  
 230 235 240  
 Trp Val Gln Thr Glu Arg Gln Gln Phe Arg Asp Phe Arg Asp Leu  
 245 250 255  
 Asn Lys Asp Gly His Leu Asp Gly Ser Glu Val Gly His Trp Val  
 260 265 270  
 Leu Pro Pro Ala Gln Asp Gln Pro Leu Val Glu Ala Asn His Leu  
 275 280 285  
 Leu His Glu Ser Asp Thr Asp Lys Asp Gly Arg Leu Ser Lys Ala  
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290

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295

300

Glu Ile Leu Gly Asn Trp Asn Met Phe Val Gly Ser Gln Ala Thr  
 305 310 315

Asn Tyr Gly Glu Asp Leu Thr Arg His His Asp Glu Leu  
 320 325

&lt;210&gt; 222

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&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 222

cgcaggccct catggccagg 20

&lt;210&gt; 223

&lt;211&gt; 18

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 223

gaaatcctgg gtaattgg 18

&lt;210&gt; 224

&lt;211&gt; 23

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 224

gtgcgcggtg ctcacagctc atc 23

&lt;210&gt; 225

&lt;211&gt; 44

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 225

ccccctgag cgaagctccc ccatgatgac gcccacggga actt 44

&lt;210&gt; 226

&lt;211&gt; 2403

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;400&gt; 226

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gcggagcccc gggcgggcggg cgcggtgctg agggatccct gacgcctctg 100

tccctgtttc tttgtcgtc ccagcctgtc tgctgtcgtt ttggcgcccc 150



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&lt;211&gt; 550

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 227

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 35 40 45  
 Ala Asp Val Leu Cys Pro Gly Gly Cys Pro Leu Glu Glu Phe Ser  
 50 55 60  
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 65 70 75  
 Ala Ala Val His Arg Gly Val Ile Ser Asn Ser Gly Gly Pro Val  
 80 85 90  
 Arg Val Tyr Ser Leu Pro Gly Arg Glu Asn Tyr Ser Ser Val Asp  
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Gln Ala Val Ser Thr Ala His Pro Pro Thr Gly Lys Arg Leu Lys  
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 Lys Thr Pro Glu Lys Lys Thr Gly Asn Lys Asp Cys Lys Ala Asp  
 155 160 165  
 Ile Ala Phe Leu Ile Asp Gly Ser Phe Asn Ile Gly Gln Arg Arg  
 170 175 180  
 Phe Asn Leu Gln Lys Asn Phe Val Gly Lys Val Ala Leu Met Leu  
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 Gly Ile Gly Thr Glu Gly Pro His Val Gly Leu Val Gln Ala Ser  
 200 205 210  
 Glu His Pro Lys Ile Glu Phe Tyr Leu Lys Asn Phe Thr Ser Ala  
 215 220 225  
 Lys Asp Val Leu Phe Ala Ile Lys Glu Val Gly Phe Arg Gly Gly  
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 245 250 255  
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 260 265 270  
 Val Val Phe Ile Asp Gly Trp Pro Ser Asp Asp Ile Glu Glu Ala  
 275 280 285  
 Gly Ile Val Ala Arg Glu Phe Gly Val Asn Val Phe Ile Val Ser  
 290 295 300  
 Val Ala Lys Pro Ile Pro Glu Glu Leu Gly Met Val Gln Asp Val  
 305 310 315  
 Thr Phe Val Asp Lys Ala Val Cys Arg Asn Asn Gly Phe Phe Ser  
 320 325 330  
 Tyr His Met Pro Asn Trp Phe Gly Thr Thr Lys Tyr Val Lys Pro  
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 395 400 405  
 Ile Ala Ala Val Gln Phe Thr Tyr Asp Gln Arg Thr Glu Phe Ser  
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	470	475	480
Asp Val Gln Gly	Pro Ala Ala Ala Ala	His Asp Ala Gly Ile	Thr
	485	490	495
Ile Phe Ser Val	Gly Val Ala Trp Ala	Pro Leu Asp Asp Leu	Lys
	500	505	510
Asp Met Ala Ser	Lys Pro Lys Glu Ser	His Ala Phe Phe Thr	Arg
	515	520	525
Glu Phe Thr Gly	Leu Glu Pro Ile Val	Ser Asp Val Ile Arg	Gly
	530	535	540
Ile Cys Arg Asp	Phe Leu Glu Ser Gln	Gln	
	545	550	

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<212> PRT  
<213> Homo Sapien

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35 40 45  
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50 55 60  
Thr Gln His Lys Leu Arg Ser Ala Val Glu Glu Met Glu Ala Glu  
65 70 75  
Glu Ala Ala Ala Lys Ala Ser Ser Glu Val Asn Leu Ala Asn Leu  
80 85 90  
Pro Pro Ser Tyr His Asn Glu Thr Asn Thr Asp Thr Lys Val Gly  
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Val Gly Asp Glu Glu Gly Arg Arg Ser His Glu Cys Ile Ile Asp  
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Glu Asp Cys Gly Pro Ser Met Tyr Cys Gln Phe Ala Ser Phe Gln  
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170 175 180  
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185 190 195

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Glu	Met	Ala	Leu	Gly	Glu	Pro	Ala	Ala	Ala	Ala	Ala	Ala	Leu	Leu
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				350										

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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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<210> 238

<211> 49

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

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ggaggactgt gccaccatga gagactcttc aaaccaagg caaaattgg 49

<210> 239

<211> 24

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P1618P2C2.txt

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catttgggag agggatgcc aggaacgcct catctcagca gcctgggctc 3550  
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<210> 245  
<211> 713  
<212> PRT  
<213> Homo Sapien

<400> 245

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Ala	Thr	Ala	Thr	Val	Pro	Val	Val	Pro	Trp	His	Val	Pro	Cys	Pro	20	25	30	
Pro	Gln	Cys	Ala	Cys	Gln	Ile	Arg	Pro	Trp	Tyr	Thr	Pro	Arg	Ser	35	40	45	
Ser	Tyr	Arg	Glu	Ala	Thr	Thr	Val	Asp	Cys	Asn	Asp	Leu	Phe	Leu	50	55	60	
Thr	Ala	Val	Pro	Pro	Ala	Leu	Pro	Ala	Gly	Thr	Gln	Thr	Leu	Leu	65	70	75	
Leu	Gln	Ser	Asn	Ser	Ile	Val	Arg	Val	Asp	Gln	Ser	Glu	Leu	Gly	80	85	90	
Tyr	Leu	Ala	Asn	Leu	Thr	Glu	Leu	Asp	Leu	Ser	Gln	Asn	Ser	Phe	95	100	105	
Ser	Asp	Ala	Arg	Asp	Cys	Asp	Phe	His	Ala	Leu	Pro	Gln	Leu	Leu	110	115	120	
Ser	Leu	His	Leu	Glu	Glu	Asn	Gln	Leu	Thr	Arg	Leu	Glu	Asp	His	125	130	135	
Ser	Phe	Ala	Gly	Leu	Ala	Ser	Leu	Gln	Glu	Leu	Tyr	Leu	Asn	His	140	145	150	
Asn	Gln	Leu	Tyr	Arg	Ile	Ala	Pro	Arg	Ala	Phe	Ser	Gly	Leu	Ser	155	160	165	
Asn	Leu	Leu	Arg	Leu	His	Leu	Asn	Ser	Asn	Leu	Leu	Arg	Ala	Ile	170	175	180	
Asp	Ser	Arg	Trp	Phe	Glu	Met	Leu	Pro	Asn	Leu	Glu	Ile	Leu	Met	185	190	195	
Ile	Gly	Gly	Asn	Lys	Val	Asp	Ala	Ile	Leu	Asp	Met	Asn	Phe	Arg	200	205	210	
Pro	Leu	Ala	Asn	Leu	Arg	Ser	Leu	Val	Leu	Ala	Gly	Met	Asn	Leu	215	220	225	

P1618P2C2.txt

Arg Glu Ile Ser Asp Tyr Ala Leu Glu Gly Leu Gln Ser Leu Glu  
230 235 240

Ser Leu Ser Phe Tyr Asp Asn Gln Leu Ala Arg Val Pro Arg Arg  
245 250 255

Ala Leu Glu Gln Val Pro Gly Leu Lys Phe Leu Asp Leu Asn Lys  
260 265 270

Asn Pro Leu Gln Arg Val Gly Pro Gly Asp Phe Ala Asn Met Leu  
275 280 285

His Leu Lys Glu Leu Gly Leu Asn Asn Met Glu Glu Leu Val Ser  
290 295 300

Ile Asp Lys Phe Ala Leu Val Asn Leu Pro Glu Leu Thr Lys Leu  
305 310 315

Asp Ile Thr Asn Asn Pro Arg Leu Ser Phe Ile His Pro Arg Ala  
320 325 330

Phe His His Leu Pro Gln Met Glu Thr Leu Met Leu Asn Asn Asn  
335 340 345

Ala Leu Ser Ala Leu His Gln Gln Thr Val Glu Ser Leu Pro Asn  
350 355 360

Leu Gln Glu Val Gly Leu His Gly Asn Pro Ile Arg Cys Asp Cys  
365 370 375

Val Ile Arg Trp Ala Asn Ala Thr Gly Thr Arg Val Arg Phe Ile  
380 385 390

Glu Pro Gln Ser Thr Leu Cys Ala Glu Pro Pro Asp Leu Gln Arg  
395 400 405

Leu Pro Val Arg Glu Val Pro Phe Arg Glu Met Thr Asp His Cys  
410 415 420

Leu Pro Leu Ile Ser Pro Arg Ser Phe Pro Pro Ser Leu Gln Val  
425 430 435

Ala Ser Gly Glu Ser Met Val Leu His Cys Arg Ala Leu Ala Glu  
440 445 450

Pro Glu Pro Glu Ile Tyr Trp Val Thr Pro Ala Gly Leu Arg Leu  
455 460 465

Thr Pro Ala His Ala Gly Arg Arg Tyr Arg Val Tyr Pro Glu Gly  
470 475 480

Thr Leu Glu Leu Arg Arg Val Thr Ala Glu Glu Ala Gly Leu Tyr  
485 490 495

Thr Cys Val Ala Gln Asn Leu Val Gly Ala Asp Thr Lys Thr Val  
500 505 510

Ser Val Val Val Gly Arg Ala Leu Leu Gln Pro Gly Arg Asp Glu  
515 520 525

Gly Gln Gly Leu Glu Leu Arg Val Gln Glu Thr His Pro Tyr His  
530 535 540

P1618P2C2.txt

Ile Leu Leu Ser Trp Val Thr Pro Pro Asn Thr Val Ser Thr Asn  
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560 565 570  
Ala Leu Ala Arg Leu Pro Arg Gly Thr His Ser Tyr Asn Ile Thr  
575 580 585  
Arg Leu Leu Gln Ala Thr Glu Tyr Trp Ala Cys Leu Gln Val Ala  
590 595 600  
Phe Ala Asp Ala His Thr Gln Leu Ala Cys Val Trp Ala Arg Thr  
605 610 615  
Lys Glu Ala Thr Ser Cys His Arg Ala Leu Gly Asp Arg Pro Gly  
620 625 630  
Leu Ile Ala Ile Leu Ala Leu Ala Val Leu Leu Leu Ala Ala Gly  
635 640 645  
Leu Ala Ala His Leu Gly Thr Gly Gln Pro Arg Lys Gly Val Gly  
650 655 660  
Gly Arg Arg Pro Leu Pro Pro Ala Trp Ala Phe Trp Gly Trp Ser  
665 670 675  
Ala Pro Ser Val Arg Val Val Ser Ala Pro Leu Val Leu Pro Trp  
680 685 690  
Asn Pro Gly Arg Lys Leu Pro Arg Ser Ser Glu Gly Glu Thr Leu  
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<210> 246

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 246

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<210> 247

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 247

aaacttgatc atggagacca gctc 24

<210> 248

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 248

aggggctgca aagcctggag agcctctcct tctatgacaa ccagc 45

<210> 249

<211> 3401

<212> DNA

<213> Homo Sapien

<400> 249

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P1618P2C2.txt

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 <211> 546  
 <212> PRT  
 <213> Homo Sapien

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 Cys Thr Val Asp Ile Glu Ser Leu Thr Gly Tyr Arg Thr Tyr Arg  
 35 40 45  
 Cys Ala His Pro Leu Ala Thr Leu Phe Lys Ile Leu Ala Ser Phe  
 50 55 60  
 Tyr Ile Ser Leu Val Ile Phe Tyr Gly Leu Ile Cys Met Tyr Thr  
 65 70 75  
 Leu Trp Trp Met Leu Arg Arg Ser Leu Lys Lys Tyr Ser Phe Glu  
 80 85 90  
 Ser Ile Arg Glu Glu Ser Ser Tyr Ser Asp Ile Pro Asp Val Lys  
 95 100 105  
 Asn Asp Phe Ala Phe Met Leu His Leu Ile Asp Gln Tyr Asp Pro  
 110 115 120  
 Leu Tyr Ser Lys Arg Phe Ala Val Phe Leu Ser Glu Val Ser Glu  
 125 130 135  
 Asn Lys Leu Arg Gln Leu Asn Leu Asn Asn Glu Trp Thr Leu Asp  
 140 145 150  
 Lys Leu Arg Gln Arg Leu Thr Lys Asn Ala Gln Asp Lys Leu Glu  
 155 160 165

P1618P2C2.txt

Leu His Leu Phe	Met 170	Leu Ser Gly Ile	Pro 175	Asp Thr Val Phe	Asp 180
Leu Val Glu Leu	Glu 185	Val Leu Lys Leu	Glu 190	Leu Ile Pro Asp	Val 195
Thr Ile Pro Pro	Ser 200	Ile Ala Gln Leu	Thr 205	Gly Leu Lys Glu	Leu 210
Trp Leu Tyr His	Thr 215	Ala Ala Lys Ile	Glu 220	Ala Pro Ala Leu	Ala 225
Phe Leu Arg Glu	Asn 230	Leu Arg Ala Leu	His 235	Ile Lys Phe Thr	Asp 240
Ile Lys Glu Ile	Pro 245	Leu Trp Ile Tyr	Ser 250	Leu Lys Thr Leu	Glu 255
Glu Leu His Leu	Thr 260	Gly Asn Leu Ser	Ala 265	Glu Asn Asn Arg	Tyr 270
Ile Val Ile Asp	Gly 275	Leu Arg Glu Leu	Lys 280	Arg Leu Lys Val	Leu 285
Arg Leu Lys Ser	Asn 290	Leu Ser Lys Leu	Pro 295	Gln Val Val Thr	Asp 300
Val Gly Val His	Leu 305	Gln Lys Leu Ser	Ile 310	Asn Asn Glu Gly	Thr 315
Lys Leu Ile Val	Leu 320	Asn Ser Leu Lys	Lys 325	Met Ala Asn Leu	Thr 330
Glu Leu Glu Leu	Ile 335	Arg Cys Asp Leu	Glu 340	Arg Ile Pro His	Ser 345
Ile Phe Ser Leu	His 350	Asn Leu Gln Glu	Ile 355	Asp Leu Lys Asp	Asn 360
Asn Leu Lys Thr	Ile 365	Glu Glu Ile Ile	Ser 370	Phe Gln His Leu	His 375
Arg Leu Thr Cys	Leu 380	Lys Leu Trp Tyr	Asn 385	His Ile Ala Tyr	Ile 390
Pro Ile Gln Ile	Gly 395	Asn Leu Thr Asn	Leu 400	Glu Arg Leu Tyr	Leu 405
Asn Arg Asn Lys	Ile 410	Glu Lys Ile Pro	Thr 415	Gln Leu Phe Tyr	Cys 420
Arg Lys Leu Arg	Tyr 425	Leu Asp Leu Ser	His 430	Asn Asn Leu Thr	Phe 435
Leu Pro Ala Asp	Ile 440	Gly Leu Leu Gln	Asn 445	Leu Gln Asn Leu	Ala 450
Ile Thr Ala Asn	Arg 455	Ile Glu Thr Leu	Pro 460	Pro Glu Leu Phe	Gln 465
Cys Arg Lys Leu	Arg 470	Ala Leu His Leu	Gly 475	Asn Asn Val Leu	Gln 480

P1618P2C2.txt

Ser Leu Pro Ser Arg Val Gly Glu Leu Thr Asn Leu Thr Gln Ile  
485 490 495  
Glu Leu Arg Gly Asn Arg Leu Glu Cys Leu Pro Val Glu Leu Gly  
500 505 510  
Glu Cys Pro Leu Leu Lys Arg Ser Gly Leu Val Val Glu Glu Asp  
515 520 525  
Leu Phe Asn Thr Leu Pro Pro Glu Val Lys Glu Arg Leu Trp Arg  
530 535 540  
Ala Asp Lys Glu Gln Ala  
545

<210> 251  
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<223> Synthetic Oligonucleotide Probe

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<210> 252  
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<400> 252  
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<210> 254  
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<212> DNA  
<213> Homo Sapien

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tgaacgcagg agctgtcatt gactggccca cagaggaggg caaggaagta 150  
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ttatgccacc aactcctgca agaactttctc agaactgccc ctggcatgt 250  
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&lt;210&gt; 255

&lt;211&gt; 452

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 255

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Leu Leu Pro Leu Leu Leu Gly Leu Asn Ala Gly Ala Val Ile Asp
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Trp Pro Thr Glu Glu Gly Lys Glu Val Trp Asp Tyr Val Thr Val
          35          40          45
Arg Lys Asp Ala Tyr Met Phe Trp Trp Leu Tyr Tyr Ala Thr Asn
          50          55          60
Ser Cys Lys Asn Phe Ser Glu Leu Pro Leu Val Met Trp Leu Gln
          65          70          75
Gly Gly Pro Gly Gly Ser Ser Thr Gly Phe Gly Asn Phe Glu Glu
          80          85          90
Ile Gly Pro Leu Asp Ser Asp Leu Lys Pro Arg Lys Thr Thr Trp
          95          100          105
Leu Gln Ala Ala Ser Leu Leu Phe Val Asp Asn Pro Val Gly Thr
          110          115          120
Gly Phe Ser Tyr Val Asn Gly Ser Gly Ala Tyr Ala Lys Asp Leu
          125          130          135
Ala Met Val Ala Ser Asp Met Met Val Leu Leu Lys Thr Phe Phe
          140          145          150
Ser Cys His Lys Glu Phe Gln Thr Val Pro Phe Tyr Ile Phe Ser
          155          160          165
Glu Ser Tyr Gly Gly Lys Met Ala Ala Gly Ile Gly Leu Glu Leu
          170          175          180
Tyr Lys Ala Ile Gln Arg Gly Thr Ile Lys Cys Asn Phe Ala Gly
          185          190          195
Val Ala Leu Gly Asp Ser Trp Ile Ser Pro Val Asp Ser Val Leu
          200          205          210
Ser Trp Gly Pro Tyr Leu Tyr Ser Met Ser Leu Leu Glu Asp Lys
          215          220          225
Gly Leu Ala Glu Val Ser Lys Val Ala Glu Gln Val Leu Asn Ala
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Val Asn Lys Gly Leu Tyr Arg Glu Ala Thr Glu Leu Trp Gly Lys
          245          250          255
Ala Glu Met Ile Ile Glu Gln Asn Thr Asp Gly Val Asn Phe Tyr
          260          265          270
Asn Ile Leu Thr Lys Ser Thr Pro Thr Ser Thr Met Glu Ser Ser
          275          280          285
Leu Glu Phe Thr Gln Ser His Leu Val Cys Leu Cys Gln Arg His
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Val Arg His Leu Gln Arg Asp Ala Leu Ser Gln Leu Met Asn Gly
          305          310          315

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P1618P2C2.txt

Pro Ile Arg Lys	Lys Leu Lys Ile Ile	Pro Glu Asp Gln Ser Trp
	320	325 330
Gly Gly Gln Ala	Thr Asn Val Phe Val	Asn Met Glu Glu Asp Phe
	335	340 345
Met Lys Pro Val	Ile Ser Ile Val Asp	Glu Leu Leu Glu Ala Gly
	350	355 360
Ile Asn Val Thr	Val Tyr Asn Gly Gln	Leu Asp Leu Ile Val Asp
	365	370 375
Thr Met Gly Gln	Glu Ala Trp Val Arg	Lys Leu Lys Trp Pro Glu
	380	385 390
Leu Pro Lys Phe	Ser Gln Leu Lys Trp	Lys Ala Leu Tyr Ser Asp
	395	400 405
Pro Lys Ser Leu	Glu Thr Ser Ala Phe	Val Lys Ser Tyr Lys Asn
	410	415 420
Leu Ala Phe Tyr	Trp Ile Leu Lys Ala	Gly His Met Val Pro Ser
	425	430 435
Asp Gln Gly Asp	Met Ala Leu Lys Met	Met Arg Leu Val Thr Gln
	440	445 450

Gln Glu

<210> 256  
 <211> 1100  
 <212> DNA  
 <213> Homo Sapien

<400> 256  
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 ccgttatcag gaccatgcgg ccgacgggtc atcacgtcgc gcatcgtggg 150  
 tggagaggac gccgaactcg ggcgttggcc gtggcagggg agcctgcgcc 200  
 tgtgggattc ccacgtatgc ggagtgaacc tgctcagcca ccgctgggca 250  
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 cgggtggatg gtccagtttg gccagctgac ttccatgccca tccttctgga 350  
 gcctgcaggc ctactacacc cgttacttcg tatcgaatat ctatctgagc 400  
 cctcgctacc tggggaattc accctatgac attgccttgg tgaagctgtc 450  
 tgcacctgtc acctacacta aacacatcca gcccatctgt ctccaggcct 500  
 ccacatttga gtttgagaac cggacagact gctgggtgac tggctggggg 550  
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 caaggcgaggga aggatgcctg cttcggtgac tcaggtggac ccttggcctg 750  
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 gctgtggtcg gcccaatcgg cccggtgtct acaccaatat cagccaccac 850  
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 cccctcctgg ccactactct ttttcctct tctctgggct ctcccactcc 950  
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&lt;210&gt; 257

&lt;211&gt; 314

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 257

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 Ala Gly Leu Arg Lys Pro Glu Ser Gln Glu Ala Ala Pro Leu Ser  
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 Gly Pro Cys Gly Arg Arg Val Ile Thr Ser Arg Ile Val Gly Gly  
 35 40 45  
 Glu Asp Ala Glu Leu Gly Arg Trp Pro Trp Gln Gly Ser Leu Arg  
 50 55 60  
 Leu Trp Asp Ser His Val Cys Gly Val Ser Leu Leu Ser His Arg  
 65 70 75  
 Trp Ala Leu Thr Ala Ala His Cys Phe Glu Thr Tyr Ser Asp Leu  
 80 85 90  
 Ser Asp Pro Ser Gly Trp Met Val Gln Phe Gly Gln Leu Thr Ser  
 95 100 105  
 Met Pro Ser Phe Trp Ser Leu Gln Ala Tyr Tyr Thr Arg Tyr Phe  
 110 115 120  
 Val Ser Asn Ile Tyr Leu Ser Pro Arg Tyr Leu Gly Asn Ser Pro  
 125 130 135  
 Tyr Asp Ile Ala Leu Val Lys Leu Ser Ala Pro Val Thr Tyr Thr  
 140 145 150  
 Lys His Ile Gln Pro Ile Cys Leu Gln Ala Ser Thr Phe Glu Phe  
 155 160 165  
 Glu Asn Arg Thr Asp Cys Trp Val Thr Gly Trp Gly Tyr Ile Lys  
 170 175 180  
 Glu Asp Glu Ala Leu Pro Ser Pro His Thr Leu Gln Glu Val Gln  
 185 190 195

P1618P2C2.txt

Val	Ala	Ile	Ile	Asn	Asn	Ser	Met	Cys	Asn	His	Leu	Phe	Leu	Lys
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Tyr	Ser	Phe	Arg	Lys	Asp	Ile	Phe	Gly	Asp	Met	Val	Cys	Ala	Gly
				215					220					225
Asn	Ala	Gln	Gly	Gly	Lys	Asp	Ala	Cys	Phe	Gly	Asp	Ser	Gly	Gly
				230					235					240
Pro	Leu	Ala	Cys	Asn	Lys	Asn	Gly	Leu	Trp	Tyr	Gln	Ile	Gly	Val
				245					250					255
Val	Ser	Trp	Gly	Val	Gly	Cys	Gly	Arg	Pro	Asn	Arg	Pro	Gly	Val
				260					265					270
Tyr	Thr	Asn	Ile	Ser	His	His	Phe	Glu	Trp	Ile	Gln	Lys	Leu	Met
				275					280					285
Ala	Gln	Ser	Gly	Met	Ser	Gln	Pro	Asp	Pro	Ser	Trp	Pro	Leu	Leu
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Phe	Phe	Pro	Leu	Leu	Trp	Ala	Leu	Pro	Leu	Leu	Gly	Pro	Val	
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 <213> Homo Sapien

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 cgtgcggacc ctgaggaaga gctgagtctc acctttgccc tgagacagca 200  
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 ctctcaata cggaaaatac ctgaccctag agaatgtggc tgatctggtg 300  
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ccagtctaga tgtgcagtag ctgatgagtg ctggtgccaa catctccacc 900  
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gtggctcatg ctgctcagta atgagtcagc cctgccacat gtgcatactg 1000  
tgagctatgg agatgatgag gactccctca gcagcgcta catccagcgg 1050  
gtcaacactg agctcatgaa ggctgccgct cgggggtctca ccctgctctt 1100  
cgcctcaggt gacagtgggg ccgggtgttg gtctgtctct ggaagacacc 1150  
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aatgattgat acctcaaag taaaaaa 2427 P1618P2C2.txt

<210> 259  
<211> 556  
<212> PRT  
<213> Homo Sapien

<400> 259

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				20					25					30	
Leu	Pro	Pro	Gly	Trp	Val	Ser	Leu	Gly	Arg	Ala	Asp	Pro	Glu	Glu	
			35						40					45	
Glu	Leu	Ser	Leu	Thr	Phe	Ala	Leu	Arg	Gln	Gln	Asn	Val	Glu	Arg	
				50					55					60	
Leu	Ser	Glu	Leu	Val	Gln	Ala	Val	Ser	Asp	Pro	Ser	Ser	Pro	Gln	
				65					70					75	
Tyr	Gly	Lys	Tyr	Leu	Thr	Leu	Glu	Asn	Val	Ala	Asp	Leu	Val	Arg	
				80					85					90	
Pro	Ser	Pro	Leu	Thr	Leu	His	Thr	Val	Gln	Lys	Trp	Leu	Leu	Ala	
				95					100					105	
Ala	Gly	Ala	Gln	Lys	Cys	His	Ser	Val	Ile	Thr	Gln	Asp	Phe	Leu	
				110					115					120	
Thr	Cys	Trp	Leu	Ser	Ile	Arg	Gln	Ala	Glu	Leu	Leu	Leu	Pro	Gly	
				125					130					135	
Ala	Glu	Phe	His	His	Tyr	Val	Gly	Gly	Pro	Thr	Glu	Thr	His	Val	
				140					145					150	
Val	Arg	Ser	Pro	His	Pro	Tyr	Gln	Leu	Pro	Gln	Ala	Leu	Ala	Pro	
				155					160					165	
His	Val	Asp	Phe	Val	Gly	Gly	Leu	His	Arg	Phe	Pro	Pro	Thr	Ser	
				170					175					180	
Ser	Leu	Arg	Gln	Arg	Pro	Glu	Pro	Gln	Val	Thr	Gly	Thr	Val	Gly	
				185					190					195	
Leu	His	Leu	Gly	Val	Thr	Pro	Ser	Val	Ile	Arg	Lys	Arg	Tyr	Asn	
				200					205					210	
Leu	Thr	Ser	Gln	Asp	Val	Gly	Ser	Gly	Thr	Ser	Asn	Asn	Ser	Gln	
				215					220					225	
Ala	Cys	Ala	Gln	Phe	Leu	Glu	Gln	Tyr	Phe	His	Asp	Ser	Asp	Leu	
				230					235					240	
Ala	Gln	Phe	Met	Arg	Leu	Phe	Gly	Gly	Asn	Phe	Ala	His	Gln	Ala	
				245					250					255	
Ser	Val	Ala	Arg	Val	Val	Gly	Gln	Gln	Gly	Arg	Gly	Arg	Ala	Gly	
				260					265					270	
Ile	Glu	Ala	Ser	Leu	Asp	Val	Gln	Tyr	Leu	Met	Ser	Ala	Gly	Ala	

275

280

285

Asn Ile Ser Thr Trp Val Tyr Ser Ser Pro Gly Arg His Glu Gly  
 290 295 300  
 Gln Glu Pro Phe Leu Gln Trp Leu Met Leu Leu Ser Asn Glu Ser  
 305 310 315  
 Ala Leu Pro His Val His Thr Val Ser Tyr Gly Asp Asp Glu Asp  
 320 325 330  
 Ser Leu Ser Ser Ala Tyr Ile Gln Arg Val Asn Thr Glu Leu Met  
 335 340 345  
 Lys Ala Ala Ala Arg Gly Leu Thr Leu Leu Phe Ala Ser Gly Asp  
 350 355 360  
 Ser Gly Ala Gly Cys Trp Ser Val Ser Gly Arg His Gln Phe Arg  
 365 370 375  
 Pro Thr Phe Pro Ala Ser Ser Pro Tyr Val Thr Thr Val Gly Gly  
 380 385 390  
 Thr Ser Phe Gln Glu Pro Phe Leu Ile Thr Asn Glu Ile Val Asp  
 395 400 405  
 Tyr Ile Ser Gly Gly Gly Phe Ser Asn Val Phe Pro Arg Pro Ser  
 410 415 420  
 Tyr Gln Glu Glu Ala Val Thr Lys Phe Leu Ser Ser Ser Pro His  
 425 430 435  
 Leu Pro Pro Ser Ser Tyr Phe Asn Ala Ser Gly Arg Ala Tyr Pro  
 440 445 450  
 Asp Val Ala Ala Leu Ser Asp Gly Tyr Trp Val Val Ser Asn Arg  
 455 460 465  
 Val Pro Ile Pro Trp Val Ser Gly Thr Ser Ala Ser Thr Pro Val  
 470 475 480  
 Phe Gly Gly Ile Leu Ser Leu Ile Asn Glu His Arg Ile Leu Ser  
 485 490 495  
 Gly Arg Pro Pro Leu Gly Phe Leu Asn Pro Arg Leu Tyr Gln Gln  
 500 505 510  
 His Gly Ala Gly Leu Phe Asp Val Thr Arg Gly Cys His Glu Ser  
 515 520 525  
 Cys Leu Asp Glu Glu Val Glu Gly Gln Gly Phe Cys Ser Gly Pro  
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 545 550 555  
 Cys

<210> 260  
 <211> 1638  
 <212> DNA  
 <213> Homo Sapien

&lt;400&gt; 260

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agtgagccct tacagtggcc cctggaaacc cacttggcct gcataccgcc 200  
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atgccaatga catcggcatg gattatgatt atgccctcct ggaactcaaa 850  
aagccccaca agagaaaatt tatgaagatt ggggtgagcc ctctgctaa 900  
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caggcaattt ggtgtatcgc ttctgtgacg tcaaagacga gacctatgac 1000  
ttgctctacc agcaatgcga tgcccagcca ggggccagcg ggtctgggg 1050  
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ctattggatt aaaggaaact acctggattg tagggagggg tgacacagt 1250  
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P1618P2C2.txt

caaactttga tttttatttc atctgaactt gtttcaaaga tttatattaa 1600  
atatttggca tacaagagat atgaaaaaaaa aaaaaaaaa 1638

<210> 261  
<211> 383  
<212> PRT  
<213> Homo Sapien

<400> 261  
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Cys Ala Val Gly Gln Val Ser Pro Tyr Ser Ala Pro Trp Lys Pro  
20 25 30  
Thr Trp Pro Ala Tyr Arg Leu Pro Val Val Leu Pro Gln Ser Thr  
35 40 45  
Leu Asn Leu Ala Lys Pro Asp Phe Gly Ala Glu Ala Lys Leu Glu  
50 55 60  
Val Ser Ser Ser Cys Gly Pro Gln Cys His Lys Gly Thr Pro Leu  
65 70 75  
Pro Thr Tyr Glu Glu Ala Lys Gln Tyr Leu Ser Tyr Glu Thr Leu  
80 85 90  
Tyr Ala Asn Gly Ser Arg Thr Glu Thr Gln Val Gly Ile Tyr Ile  
95 100 105  
Leu Ser Ser Ser Gly Asp Gly Ala Gln His Arg Asp Ser Gly Ser  
110 115 120  
Ser Gly Lys Ser Arg Arg Lys Arg Gln Ile Tyr Gly Tyr Asp Ser  
125 130 135  
Arg Phe Ser Ile Phe Gly Lys Asp Phe Leu Leu Asn Tyr Pro Phe  
140 145 150  
Ser Thr Ser Val Lys Leu Ser Thr Gly Cys Thr Gly Thr Leu Val  
155 160 165  
Ala Glu Lys His Val Leu Thr Ala Ala His Cys Ile His Asp Gly  
170 175 180  
Lys Thr Tyr Val Lys Gly Thr Gln Lys Leu Arg Val Gly Phe Leu  
185 190 195  
Lys Pro Lys Phe Lys Asp Gly Gly Arg Gly Ala Asn Asp Ser Thr  
200 205 210  
Ser Ala Met Pro Glu Gln Met Lys Phe Gln Trp Ile Arg Val Lys  
215 220 225  
Arg Thr His Val Pro Lys Gly Trp Ile Lys Gly Asn Ala Asn Asp  
230 235 240  
Ile Gly Met Asp Tyr Asp Tyr Ala Leu Leu Glu Leu Lys Lys Pro  
245 250 255  
His Lys Arg Lys Phe Met Lys Ile Gly Val Ser Pro Pro Ala Lys  
Page 169

260  
 Gln Leu Pro Gly Gly Arg Ile His Phe Ser Gly Tyr Asp Asn Asp  
 275 280 285  
 Arg Pro Gly Asn Leu Val Tyr Arg Phe Cys Asp Val Lys Asp Glu  
 290 295 300  
 Thr Tyr Asp Leu Leu Tyr Gln Gln Cys Asp Ala Gln Pro Gly Ala  
 305 310 315  
 Ser Gly Ser Gly Val Tyr Val Arg Met Trp Lys Arg Gln Gln Gln  
 320 325 330  
 Lys Trp Glu Arg Lys Ile Ile Gly Ile Phe Ser Gly His Gln Trp  
 335 340 345  
 Val Asp Met Asn Gly Ser Pro Gln Asp Phe Asn Val Ala Val Arg  
 350 355 360  
 Ile Thr Pro Leu Lys Tyr Ala Gln Ile Cys Tyr Trp Ile Lys Gly  
 365 370 375  
 Asn Tyr Leu Asp Cys Arg Glu Gly  
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&lt;210&gt; 262

&lt;211&gt; 1378

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;400&gt; 262

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P1618P2C2.txt

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 catcaggccc cgcccaacgg cctcatgtcc ccgccccac gacttccggc 1250  
 cccgcccccg ggccccagcg cttttgtgta tataaatgtt aatgattttt 1300  
 ataggtattt gtaaccctgc ccacatatct tatttattcc tccaatttca 1350  
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<210> 263  
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 <212> PRT  
 <213> Homo Sapien

<400> 263  
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 35 40 45  
 Gln Leu Asn Arg Val Val Gly Gly Glu Asp Ser Thr Asp Ser Glu  
 50 55 60  
 Trp Pro Trp Ile Val Ser Ile Gln Lys Asn Gly Thr His His Cys  
 65 70 75  
 Ala Gly Ser Leu Leu Thr Ser Arg Trp Val Ile Thr Ala Ala His  
 80 85 90  
 Cys Phe Lys Asp Asn Leu Asn Lys Pro Tyr Leu Phe Ser Val Leu  
 95 100 105  
 Leu Gly Ala Trp Gln Leu Gly Asn Pro Gly Ser Arg Ser Gln Lys  
 110 115 120  
 Val Gly Val Ala Trp Val Glu Pro His Pro Val Tyr Ser Trp Lys  
 125 130 135  
 Glu Gly Ala Cys Ala Asp Ile Ala Leu Val Arg Leu Glu Arg Ser  
 140 145 150  
 Ile Gln Phe Ser Glu Arg Val Leu Pro Ile Cys Leu Pro Asp Ala  
 155 160 165

P1618P2C2.txt

Ser	Ile	His	Leu	Pro	Pro	Asn	Thr	His	Cys	Trp	Ile	Ser	Gly	Trp
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Gly	Ser	Ile	Gln	Asp	Gly	Val	Pro	Leu	Pro	His	Pro	Gln	Thr	Leu
				185					190					195
Gln	Lys	Leu	Lys	Val	Pro	Ile	Ile	Asp	Ser	Glu	Val	Cys	Ser	His
				200					205					210
Leu	Tyr	Trp	Arg	Gly	Ala	Gly	Gln	Gly	Pro	Ile	Thr	Glu	Asp	Met
				215					220					225
Leu	Cys	Ala	Gly	Tyr	Leu	Glu	Gly	Glu	Arg	Asp	Ala	Cys	Leu	Gly
				230					235					240
Asp	Ser	Gly	Gly	Pro	Leu	Met	Cys	Gln	Val	Asp	Gly	Ala	Trp	Leu
				245					250					255
Leu	Ala	Gly	Ile	Ile	Ser	Trp	Gly	Glu	Gly	Cys	Ala	Glu	Arg	Asn
				260					265					270
Arg	Pro	Gly	Val	Tyr	Ile	Ser	Leu	Ser	Ala	His	Arg	Ser	Trp	Val
				275					280					285
Glu	Lys	Ile	Val	Gln	Gly	Val	Gln	Leu	Arg	Gly	Arg	Ala	Gln	Gly
				290					295					300
Gly	Gly	Ala	Leu	Arg	Ala	Pro	Ser	Gln	Gly	Ser	Gly	Ala	Ala	Ala
				305					310					315

Arg Ser

<210> 264  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 264  
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<210> 265  
 <211> 19  
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<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 265  
 gcagaggtgt ctaaggttg 19

<210> 266  
 <211> 24  
 <212> DNA  
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<220>  
 <223> Synthetic Oligonucleotide Probe



<400> 266  
agctctagac caatgccagc ttcc 24

<210> 267  
<211> 45  
<212> DNA  
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<220>  
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<400> 267  
gccaccaact cctgcaagaa cttctcagaa ctgcccctgg tcatg 45

<210> 268  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 268  
ggggaattca ccctatgaca ttgcc 25

<210> 269  
<211> 24  
<212> DNA  
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<220>  
<223> Synthetic Oligonucleotide Probe

<400> 269  
gaatgccctg caagcatcaa ctgg 24

<210> 270  
<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 270  
gcacctgtca cctacactaa acacatccag cccatctgtc tccaggcctc 50

<210> 271  
<211> 26  
<212> DNA  
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<220>  
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<400> 271  
gcggaagggc agaatgggac tccaag 26

<210> 272  
<211> 18  
<212> DNA  
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<220>  
<223> Synthetic Oligonucleotide Probe

<400> 272  
cagccctgcc acatgtgc 18

<210> 273  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 273  
tactgggtgg tcagcaac 18

<210> 274  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 274  
ggcgaagagc agggtagagac cccg 24

<210> 275  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
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<400> 275  
gccctcatcc tctctggcaa atgcagttac agcccggagc ccgac 45

<210> 276  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic Oligonucleotide Probe

<400> 276  
gggcagggat tccagggtc c 21

<210> 277  
<211> 18  
<212> DNA  
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<220>  
<223> Synthetic Oligonucleotide Probe

<400> 277  
ggctatgaca gcaggttc 18

<210> 278

<211> 18  
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 <400> 278  
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 <210> 279  
 <211> 24  
 <212> DNA  
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 <223> Synthetic Oligonucleotide Probe  
  
 <400> 279  
 gcatcgcatt gctggtagag caag 24  
  
 <210> 280  
 <211> 45  
 <212> DNA  
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 <220>  
 <223> Synthetic Oligonucleotide Probe  
  
 <400> 280  
 ttacagtgcc ccctggaaac ccacttggcc tgcataccgc ctccc 45  
  
 <210> 281  
 <211> 34  
 <212> DNA  
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 <220>  
 <223> Synthetic Oligonucleotide Probe  
  
 <400> 281  
 cgtctcgagc gtcataca gttcccttgc ccca 34  
  
 <210> 282  
 <211> 61  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Synthetic Oligonucleotide Probe  
  
 <400> 282  
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 tgccaggtgg a 61  
  
 <210> 283  
 <211> 119  
 <212> DNA  
 <213> Artificial Sequence  
  
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<400> 283

ccctcagacc ctgcagaagc tgaaggttcc tatcatcgac tcggaagtct 50  
gcagccatct gtactggcgg ggagcaggac agggacccat cactgaggac 100  
atgctgtgtg ccggctact 119

<210> 284

<211> 1875

<212> DNA

<213> Homo Sapien

<400> 284

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ccgctactgc tactgctggt ggccaccaca ggccccgttg gagccctcac 100  
agatgaggag aaacgtttga tgggtggagct gcacaacctc taccgggccc 150  
aggtatcccc gacggcctca gacatgctgc acatgagatg ggacgaggag 200  
ctggccgcct tcgccaaggc ctacgcacgg cagtgcgtgt ggggccacaa 250  
caaggagcgc gggcgccgcg gcgagaatct gttcgccatc acagacgagg 300  
gcatggacgt gccgctggcc atggaggagt ggcaccacga gcgtgagcac 350  
tacaacctca gcgccgccac ctgcagccca ggccagatgt gcggccacta 400  
cacgcaggtg gtatgggcca agacagagag gatcggctgt ggttcccact 450  
tctgtgagaa gctccaggtt gttgaggaga ccaacatcga attactggtg 500  
tgcaactatg agcctccggg gaacgtgaag gggaaacggc cctaccagga 550  
ggggactccg tgctcccaat gtccctcttg ctaccactgc aagaactccc 600  
tctgtgaacc catcggaagc ccggaagatg ctcaggattt gccttacctg 650  
gtaactgagg ccccatcctt ccgggcgact gaagcatcag actctaggaa 700  
aatgggtact ctttcttccc tagcaacggg gattccggct ttcttggtaa 750  
cagaggtctc aggtccctg gcaaccaagg ctctgcctgc tgtggaaacc 800  
caggcccaa cttccttagc aacgaaagac ccgccctcca tggcaacaga 850  
ggctccacct tgcgtaacaa ctgaggtccc ttccattttg gcagctcaca 900  
gcctgcctc cttggatgag gagccagtta ctttcccaa atcgacccat 950  
gttcctatcc caaaatcagc agacaaagtg acagacaaaa caaaagtgcc 1000  
ctctaggagc ccagagaact ctctggaccc caagatgtcc ctgacagggg 1050  
caagggaact cctaccccat gcccaggagg aggtgaggc tgaggctgag 1100  
ttgcctcctt ccagtgaagt cttggcctca gtttttccag ccaggacaa 1150  
gccaggtgag ctgcaggcca cactggacca cacggggcac acctcctcca 1200  
agtcctgcc caatttcccc aatacctctg ccaccgctaa tgccacgggt 1250

P1618P2C2.txt

gggctgcccc tggctctgca gtcgtccttg ccaggtgcag agggccctga 1300  
 caagcctagc gttgtgtcag ggctgaactc gggccctggg catgtgtggg 1350  
 gccctctcct gggactactg ctctgcctc ctctgggtgtt ggctggaatc 1400  
 ttctgaatgg gataccactc aaagggtgaa gaggtcagct gtcctcctgt 1450  
 catcttcccc accctgtccc cagcccctaa acaagatact tcttggttaa 1500  
 ggccctccgg aagggaaagg ctacggggca tgtgcctcat cacaccatcc 1550  
 atcctggagg cacaaggcct ggctggctgc gagctcagga ggccgcctga 1600  
 ggactgcaca ccggggccac acctctcctg cccctccctc ctgagtcctg 1650  
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 tgcccacaca gcatgtgcgc tctccctgag tgcctgtgta gctggggatg 1750  
 gggattccta ggggcagatg aaggacaagc cccactggag tggggttctt 1800  
 tgagtggggg aggcaggagc gaggggaagga aagtaactcc tgactctcca 1850  
 ataaaaacct gtccaacctg tgaaa 1875

<210> 285  
 <211> 463  
 <212> PRT  
 <213> Homo Sapien

<400> 285  
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 20 25 30  
 Glu Glu Lys Arg Leu Met Val Glu Leu His Asn Leu Tyr Arg Ala  
 35 40 45  
 Gln Val Ser Pro Thr Ala Ser Asp Met Leu His Met Arg Trp Asp  
 50 55 60  
 Glu Glu Leu Ala Ala Phe Ala Lys Ala Tyr Ala Arg Gln Cys Val  
 65 70 75  
 Trp Gly His Asn Lys Glu Arg Gly Arg Arg Gly Glu Asn Leu Phe  
 80 85 90  
 Ala Ile Thr Asp Glu Gly Met Asp Val Pro Leu Ala Met Glu Glu  
 95 100 105  
 Trp His His Glu Arg Glu His Tyr Asn Leu Ser Ala Ala Thr Cys  
 110 115 120  
 Ser Pro Gly Gln Met Cys Gly His Tyr Thr Gln Val Val Trp Ala  
 125 130 135  
 Lys Thr Glu Arg Ile Gly Cys Gly Ser His Phe Cys Glu Lys Leu  
 140 145 150

P1618P2C2.txt

Gln Gly Val Glu	Glu Thr Asn Ile Glu	Leu Leu Val Cys Asn Tyr
155	160	165
Glu Pro Pro Gly	Asn Val Lys Gly Lys Arg Pro Tyr Gln Glu	Gly
170	175	180
Thr Pro Cys Ser	Gln Cys Pro Ser Gly Tyr His Cys Lys Asn	Ser
185	190	195
Leu Cys Glu Pro	Ile Gly Ser Pro Glu Asp Ala Gln Asp Leu	Pro
200	205	210
Tyr Leu Val Thr	Glu Ala Pro Ser Phe Arg Ala Thr Glu Ala	Ser
215	220	225
Asp Ser Arg Lys	Met Gly Thr Pro Ser Ser Leu Ala Thr Gly	Ile
230	235	240
Pro Ala Phe Leu	Val Thr Glu Val Ser Gly Ser Leu Ala Thr	Lys
245	250	255
Ala Leu Pro Ala	Val Glu Thr Gln Ala Pro Thr Ser Leu Ala	Thr
260	265	270
Lys Asp Pro Pro	Ser Met Ala Thr Glu Ala Pro Pro Cys Val	Thr
275	280	285
Thr Glu Val Pro	Ser Ile Leu Ala Ala His Ser Leu Pro Ser	Leu
290	295	300
Asp Glu Glu Pro	Val Thr Phe Pro Lys Ser Thr His Val Pro	Ile
305	310	315
Pro Lys Ser Ala	Asp Lys Val Thr Asp Lys Thr Lys Val Pro	Ser
320	325	330
Arg Ser Pro Glu	Asn Ser Leu Asp Pro Lys Met Ser Leu Thr	Gly
335	340	345
Ala Arg Glu Leu	Leu Pro His Ala Gln Glu Glu Ala Glu Ala	Glu
350	355	360
Ala Glu Leu Pro	Pro Ser Ser Glu Val Leu Ala Ser Val Phe	Pro
365	370	375
Ala Gln Asp Lys	Pro Gly Glu Leu Gln Ala Thr Leu Asp His	Thr
380	385	390
Gly His Thr Ser	Ser Lys Ser Leu Pro Asn Phe Pro Asn Thr	Ser
395	400	405
Ala Thr Ala Asn	Ala Thr Gly Gly Arg Ala Leu Ala Leu Gln	Ser
410	415	420
Ser Leu Pro Gly	Ala Glu Gly Pro Asp Lys Pro Ser Val Val	Ser
425	430	435
Gly Leu Asn Ser	Gly Pro Gly His Val Trp Gly Pro Leu Leu	Gly
440	445	450
Leu Leu Leu Leu	Pro Pro Leu Val Leu Ala Gly Ile Phe	
455	460	

<210> 286  
 <211> 19  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 286  
 tcctgcagtt tcctgatgc 19

<210> 287  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 287  
 ctcatattgc acaccagtaa ttcg 24

<210> 288  
 <211> 45  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

<400> 288  
 atgaggagaa acgtttgatg gtggagctgc acaacctcta ccggg 45

<210> 289  
 <211> 3662  
 <212> DNA  
 <213> Homo Sapien

<400> 289  
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 tcattctcca agttatggtg gacgtacttc tgttgttctc cctctgcttg 100  
 ctttttcaca ttagcagacc ggacttaagt cacaacagat tatctttcat 150  
 caaggcaagt tccatgagcc accttcaaag ctttcgagaa gtgaaactga 200  
 acaacaatga attggagacc attccaaatc tgggaccagt ctcggaat 250  
 attacacttc tctccttggc tggaacagg attgttgaaa tactccctga 300  
 acatctgaaa gagtttcagt cccttgaaac tttggacctt agcagcaaca 350  
 atatttcaga gtcctaaact gcatttccag ccctacagct caaatatctg 400  
 tatctcaaca gcaaccgagt cacatcaatg gaacctgggt attttgacaa 450  
 tttggccaac acactccttg tgttaaagct gaacaggaac cgaatctcag 500  
 ctatcccacc caagatgttt aaactgcccc aactgcaaca tctcgaattg 550  
 aaccgaaaca agattaaaaa tgtagatgga ctgacattcc aaggccttgg 600

P1618P2C2.txt

tgctctgaag tctctgaaaa tgcaaagaaa tggagtaacg aaacttatgg 650  
 atggagcttt ttgggggctg agcaacatgg aaattttgca gctggaccat 700  
 aacaacctaa cagagattac caaaggctgg ctttacggct tgctgatgct 750  
 gcaggaactt catctcagcc aaaatgccat caacaggatc agccctgatg 800  
 cctgggagtt ctgccagaag ctcagtgagc tggacctaac tttcaatcac 850  
 ttatcaaggt tagatgattc aagcttcctt ggcctaagct tactaaatac 900  
 actgcacatt gggaacaaca gagtcagcta cattgctgat tgtgccttcc 950  
 gggggctttc cagtttaag actttggatc tgaagaacaa tgaaatttcc 1000  
 tggactattg aagacatgaa tgggtgctttc tctgggcttg acaaactgag 1050  
 gcgactgata ctccaaggaa atcggatccg ttctattact aaaaaagcct 1100  
 tcactggttt ggatgcattg gagcatctag acctgagtga caacgcaatc 1150  
 atgtctttac aaggcaatgc attttcacaa atgaagaaac tgcaacaatt 1200  
 gcatttaaat acatcaagcc ttttgtgca ttgccagcta aaatggctcc 1250  
 cacagtgggt ggcggaaaac aactttcaga gctttgtaaa tgccagtgtg 1300  
 gccatcctc agctgctaaa aggaagaagc atttttgctg ttagcccaga 1350  
 tggctttgtg tgtgatgatt ttcccaaacc ccagatcacg gttcagccag 1400  
 aaacacagtc ggcaataaaa ggttccaatt tgagtttcat ctgctcagct 1450  
 gccagcagca gtgattcccc aatgactttt gcttgaaaa aagacaatga 1500  
 actactgcat gatgctgaaa tggaaaatta tgcacacctc cgggcccaag 1550  
 gtggcgaggt gatggagtat accaccatcc ttcggctgcg cgagggtgga 1600  
 tttgccagtg aggggaaata tcagtgtgtc atctccaatc actttggttc 1650  
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 ccaagacccc catggatctc accatccgag ctggggccat ggcacgcttg 1750  
 gagtgtgctg ctgtggggca cccagccccc cagatagcct ggcagaagga 1800  
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 gtatacagct gcacagctca gaacagtga ggaagtattt cagcaaatgc 1950  
 aactctgact gtcctagaaa caccatcatt tttgcggcca ctgttgacc 2000  
 gaactgtaac caaggagaa acagccgtcc tacagtgcac tgctggagga 2050  
 agccctcccc ctaaactgaa ctggaccaa gatgatagcc cattggtggt 2100  
 aaccgagagg cacttttttg cagcaggcaa tcagcttctg attattgtgg 2150  
 actcagatgt cagtgatgct gggaaataca catgtgagat gtctaacc 2200



P1618P2C2.txt

cttggcactg agagaggaaa cgtgcgctc agtgtgatcc ccactccaac 2250  
 ctgcgactcc cctcagatga cagccccatc gttagacgat gacggatggg 2300  
 ccactgtggg tgtcgtgatc atagccgtgg tttgctgtgt ggtgggcacg 2350  
 tcactcgtgt ggggtggatc catataccac acaaggcgga ggaatgaaga 2400  
 ttgcagcatt accaacacag atgagaccaa cttgccagca gatattccta 2450  
 gttatttgtc atctcagga acgttagctg acaggcagga tgggtacgtg 2500  
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 gcagtgaagc tgatgtggaa gctgccacag atctgttctt ttgtccgttt 2650  
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 tccttttgaa acatatcata caggttgcag tcctgaccca agaacagttt 2750  
 taatggacca ctatgagccc agttacataa agaaaaagga gtgctacca 2800  
 tgttctcatc cttcagaaga atcctgcgaa cggagcttca gtaatatatc 2850  
 gtggccttca catgtgagga agctacttaa cactagttac tctcacaatg 2900  
 aaggacctgg aatgaaaaat ctgtgtctaa acaagtcctc tttagatttt 2950  
 agtgcaaatc cagagccagc gtcggttgcc tcgagtaatt ctttcatggg 3000  
 tacctttgga aaagctctca ggagacctca cctagatgcc tattcaagct 3050  
 ttggacagcc atcagattgt cagccaagag ctttttattt gaaagctcat 3100  
 tcttccccag acttggactc tgggtcagag gaagatggga aagaaaggac 3150  
 agattttcag gaagaaaatc acatttgtac ctttaaacag acttttagaaa 3200  
 actacaggac tccaaatttt cagtcttatg acttggacac atagactgaa 3250  
 tgagaccaa ggaaaagctt aacatactac ctcaagtga cttttattta 3300  
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 ttttttaact ttgttttatg caaaaagta tcttacgtaa attaatagata 3500  
 taaatcatga ttattttatg tatttttata atgccagatt tctttttatg 3550  
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 tgtcaatttg aa 3662

<210> 290  
 <211> 1059

P1618P2C2.txt

<212> PRT

<213> Homo Sapien

<400> 290

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Ala	Ser	Ser	Met	Ser	His	Leu	Gln	Ser	Leu	Arg	Glu	Val	Lys	Leu	35	40	45	
Asn	Asn	Asn	Glu	Leu	Glu	Thr	Ile	Pro	Asn	Leu	Gly	Pro	Val	Ser	50	55	60	
Ala	Asn	Ile	Thr	Leu	Leu	Ser	Leu	Ala	Gly	Asn	Arg	Ile	Val	Glu	65	70	75	
Ile	Leu	Pro	Glu	His	Leu	Lys	Glu	Phe	Gln	Ser	Leu	Glu	Thr	Leu	80	85	90	
Asp	Leu	Ser	Ser	Asn	Asn	Ile	Ser	Glu	Leu	Gln	Thr	Ala	Phe	Pro	95	100	105	
Ala	Leu	Gln	Leu	Lys	Tyr	Leu	Tyr	Leu	Asn	Ser	Asn	Arg	Val	Thr	110	115	120	
Ser	Met	Glu	Pro	Gly	Tyr	Phe	Asp	Asn	Leu	Ala	Asn	Thr	Leu	Leu	125	130	135	
Val	Leu	Lys	Leu	Asn	Arg	Asn	Arg	Ile	Ser	Ala	Ile	Pro	Pro	Lys	140	145	150	
Met	Phe	Lys	Leu	Pro	Gln	Leu	Gln	His	Leu	Glu	Leu	Asn	Arg	Asn	155	160	165	
Lys	Ile	Lys	Asn	Val	Asp	Gly	Leu	Thr	Phe	Gln	Gly	Leu	Gly	Ala	170	175	180	
Leu	Lys	Ser	Leu	Lys	Met	Gln	Arg	Asn	Gly	Val	Thr	Lys	Leu	Met	185	190	195	
Asp	Gly	Ala	Phe	Trp	Gly	Leu	Ser	Asn	Met	Glu	Ile	Leu	Gln	Leu	200	205	210	
Asp	His	Asn	Asn	Leu	Thr	Glu	Ile	Thr	Lys	Gly	Trp	Leu	Tyr	Gly	215	220	225	
Leu	Leu	Met	Leu	Gln	Glu	Leu	His	Leu	Ser	Gln	Asn	Ala	Ile	Asn	230	235	240	
Arg	Ile	Ser	Pro	Asp	Ala	Trp	Glu	Phe	Cys	Gln	Lys	Leu	Ser	Glu	245	250	255	
Leu	Asp	Leu	Thr	Phe	Asn	His	Leu	Ser	Arg	Leu	Asp	Asp	Ser	Ser	260	265	270	
Phe	Leu	Gly	Leu	Ser	Leu	Leu	Asn	Thr	Leu	His	Ile	Gly	Asn	Asn	275	280	285	
Arg	Val	Ser	Tyr	Ile	Ala	Asp	Cys	Ala	Phe	Arg	Gly	Leu	Ser	Ser	290	295	300	

P1618P2C2.txt

Leu	Lys	Thr	Leu	Asp	Leu	Lys	Asn	Asn	Glu	Ile	Ser	Trp	Thr	Ile
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Glu	Asp	Met	Asn	Gly	Ala	Phe	Ser	Gly	Leu	Asp	Lys	Leu	Arg	Arg
				320					325					330
Leu	Ile	Leu	Gln	Gly	Asn	Arg	Ile	Arg	Ser	Ile	Thr	Lys	Lys	Ala
				335					340					345
Phe	Thr	Gly	Leu	Asp	Ala	Leu	Glu	His	Leu	Asp	Leu	Ser	Asp	Asn
				350					355					360
Ala	Ile	Met	Ser	Leu	Gln	Gly	Asn	Ala	Phe	Ser	Gln	Met	Lys	Lys
				365					370					375
Leu	Gln	Gln	Leu	His	Leu	Asn	Thr	Ser	Ser	Leu	Leu	Cys	Asp	Cys
				380					385					390
Gln	Leu	Lys	Trp	Leu	Pro	Gln	Trp	Val	Ala	Glu	Asn	Asn	Phe	Gln
				395					400					405
Ser	Phe	Val	Asn	Ala	Ser	Cys	Ala	His	Pro	Gln	Leu	Leu	Lys	Gly
				410					415					420
Arg	Ser	Ile	Phe	Ala	Val	Ser	Pro	Asp	Gly	Phe	Val	Cys	Asp	Asp
				425					430					435
Phe	Pro	Lys	Pro	Gln	Ile	Thr	Val	Gln	Pro	Glu	Thr	Gln	Ser	Ala
				440					445					450
Ile	Lys	Gly	Ser	Asn	Leu	Ser	Phe	Ile	Cys	Ser	Ala	Ala	Ser	Ser
				455					460					465
Ser	Asp	Ser	Pro	Met	Thr	Phe	Ala	Trp	Lys	Lys	Asp	Asn	Glu	Leu
				470					475					480
Leu	His	Asp	Ala	Glu	Met	Glu	Asn	Tyr	Ala	His	Leu	Arg	Ala	Gln
				485					490					495
Gly	Gly	Glu	Val	Met	Glu	Tyr	Thr	Thr	Ile	Leu	Arg	Leu	Arg	Glu
				500					505					510
Val	Glu	Phe	Ala	Ser	Glu	Gly	Lys	Tyr	Gln	Cys	Val	Ile	Ser	Asn
				515					520					525
His	Phe	Gly	Ser	Ser	Tyr	Ser	Val	Lys	Ala	Lys	Leu	Thr	Val	Asn
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Met	Leu	Pro	Ser	Phe	Thr	Lys	Thr	Pro	Met	Asp	Leu	Thr	Ile	Arg
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Ala	Gly	Ala	Met	Ala	Arg	Leu	Glu	Cys	Ala	Ala	Val	Gly	His	Pro
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Ala	Pro	Gln	Ile	Ala	Trp	Gln	Lys	Asp	Gly	Gly	Thr	Asp	Phe	Pro
				575					580					585
Ala	Ala	Arg	Glu	Arg	Arg	Met	His	Val	Met	Pro	Glu	Asp	Asp	Val
				590					595					600
Phe	Phe	Ile	Val	Asp	Val	Lys	Ile	Glu	Asp	Ile	Gly	Val	Tyr	Ser
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P1618P2C2.txt

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	665	670	675
Pro Leu Val Val	Thr Glu Arg His Phe	Phe Ala Ala Gly Asn	Gln
	680	685	690
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	695	700	705
Thr Cys Glu Met	Ser Asn Thr Leu Gly	Thr Glu Arg Gly Asn	Val
	710	715	720
Arg Leu Ser Val	Ile Pro Thr Pro Thr	Cys Asp Ser Pro Gln	Met
	725	730	735
Thr Ala Pro Ser	Leu Asp Asp Asp Gly	Trp Ala Thr Val Gly	Val
	740	745	750
Val Ile Ile Ala	Val Val Cys Cys Val	Val Gly Thr Ser Leu	Val
	755	760	765
Trp Val Val Ile	Ile Tyr His Thr Arg	Arg Arg Asn Glu Asp	Cys
	770	775	780
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Ser Tyr Leu Ser	Ser Gln Gly Thr Leu	Ala Asp Arg Gln Asp	Gly
	800	805	810
Tyr Val Ser Ser	Glu Ser Gly Ser His	His Gln Phe Val Thr	Ser
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	830	835	840
Cys His Ile Asp	Asn Ser Ser Glu Ala	Asp Val Glu Ala Ala	Thr
	845	850	855
Asp Leu Phe Leu	Cys Pro Phe Leu Gly	Ser Thr Gly Pro Met	Tyr
	860	865	870
Leu Lys Gly Asn	Val Tyr Gly Ser Asp	Pro Phe Glu Thr Tyr	His
	875	880	885
Thr Gly Cys Ser	Pro Asp Pro Arg Thr	Val Leu Met Asp His	Tyr
	890	895	900
Glu Pro Ser Tyr	Ile Lys Lys Lys Glu	Cys Tyr Pro Cys Ser	His
	905	910	915
Pro Ser Glu Glu	Ser Cys Glu Arg Ser	Phe Ser Asn Ile Ser	Trp
	920	925	930

P1618P2C2.txt

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 Asp Phe Ser Ala Asn Pro Glu Pro Ala Ser Val Ala Ser Ser Asn  
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 Ser Phe Met Gly Thr Phe Gly Lys Ala Leu Arg Arg Pro His Leu  
 980 985 990  
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P1618P2C2.txt

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tgtctaaact gaaggagctc tggttgcgaa acaaccccat tgaaagcatc 1300  
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P1618P2C2.txt

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 Thr Cys Pro Ser Val Cys Ser Cys Ser Asn Gln Phe Ser Lys Val  
 50 55 60  
 Ile Cys Val Arg Lys Asn Leu Arg Glu Val Pro Asp Gly Ile Ser  
 65 70 75  
 Thr Asn Thr Arg Leu Leu Asn Leu His Glu Asn Gln Ile Gln Ile  
 80 85 90  
 Ile Lys Val Asn Ser Phe Lys His Leu Arg His Leu Glu Ile Leu  
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 Gln Leu Ser Arg Asn His Ile Arg Thr Ile Glu Ile Gly Ala Phe  
 110 115 120  
 Asn Gly Leu Ala Asn Leu Asn Thr Leu Glu Leu Phe Asp Asn Arg  
 125 130 135  
 Leu Thr Thr Ile Pro Asn Gly Ala Phe Val Tyr Leu Ser Lys Leu  
 140 145 150  
 Lys Glu Leu Trp Leu Arg Asn Asn Pro Ile Glu Ser Ile Pro Ser  
 Page 187

P1618P2C2.txt

155	160	165
Tyr Ala Phe Asn Arg Ile Pro Ser Leu Arg Arg Leu Asp Leu Gly	170	180
Glu Leu Lys Arg Leu Ser Tyr Ile Ser Glu Gly Ala Phe Glu Gly	185	195
Leu Ser Asn Leu Arg Tyr Leu Asn Leu Ala Met Cys Asn Leu Arg	200	210
Glu Ile Pro Asn Leu Thr Pro Leu Ile Lys Leu Asp Glu Leu Asp	215	225
Leu Ser Gly Asn His Leu Ser Ala Ile Arg Pro Gly Ser Phe Gln	230	240
Gly Leu Met His Leu Gln Lys Leu Trp Met Ile Gln Ser Gln Ile	245	255
Gln Val Ile Glu Arg Asn Ala Phe Asp Asn Leu Gln Ser Leu Val	260	270
Glu Ile Asn Leu Ala His Asn Asn Leu Thr Leu Leu Pro His Asp	275	285
Leu Phe Thr Pro Leu His His Leu Glu Arg Ile His Leu His His	290	300
Asn Pro Trp Asn Cys Asn Cys Asp Ile Leu Trp Leu Ser Trp Trp	305	315
Ile Lys Asp Met Ala Pro Ser Asn Thr Ala Cys Cys Ala Arg Cys	320	330
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Gln Asp Glu Ala Arg Thr Thr Asp Asn Asn Val Gly Pro Thr Pro		



470

475

480

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Gln Ser Thr Arg	Ser Thr Glu Lys Thr	Phe Thr Ile Pro Val	Thr
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Asp Ile Asn Ser	Gly Ile Pro Gly Ile	Asp Glu Val Met Lys	Thr
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Thr Lys Ile Ile	Ile Gly Cys Phe Val	Ala Ile Thr Leu Met	Ala
	530	535	540
Ala Val Met Leu	Val Ile Phe Tyr Lys	Met Arg Lys Gln His	His
	545	550	555
Arg Gln Asn His	His Ala Pro Thr Arg	Thr Val Glu Ile Ile	Asn
	560	565	570
Val Asp Asp Glu	Ile Thr Gly Asp Thr	Pro Met Glu Ser His	Leu
	575	580	585
Pro Met Pro Ala	Ile Glu His Glu His	Leu Asn His Tyr Asn	Ser
	590	595	600
Tyr Lys Ser Pro	Phe Asn His Thr Thr	Thr Val Asn Thr Ile	Asn
	605	610	615
Ser Ile His Ser	Ser Val His Glu Pro	Leu Leu Ile Arg Met	Asn
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Ser Lys Asp Asn	Val Gln Glu Thr Gln	Ile	
	635	640	

&lt;210&gt; 293

&lt;211&gt; 4053

&lt;212&gt; DNA

&lt;213&gt; Homo Sapien

&lt;400&gt; 293

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P1618P2C2.txt

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P1618P2C2.txt

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P1618P2C2.txt

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 Ser Arg Lys Arg Leu Ala Arg Leu Pro Glu Pro Leu Pro Ser Trp  
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 Val Ala Arg Leu Asp Leu Ser His Asn Arg Leu Ser Phe Ile Lys  
 80 85 90  
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 200 205 210

P1618P2C2.txt

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Leu	Asp	Leu	Thr	Phe	Asn	His	Leu	Ser	Arg	Leu	Asp	Asp	Ser	Ser	320	325	330
Phe	Leu	Gly	Leu	Ser	Leu	Leu	Asn	Thr	Leu	His	Ile	Gly	Asn	Asn	335	340	345
Arg	Val	Ser	Tyr	Ile	Ala	Asp	Cys	Ala	Phe	Arg	Gly	Leu	Ser	Ser	350	355	360
Leu	Lys	Thr	Leu	Asp	Leu	Lys	Asn	Asn	Glu	Ile	Ser	Trp	Thr	Ile	365	370	375
Glu	Asp	Met	Asn	Gly	Ala	Phe	Ser	Gly	Leu	Asp	Lys	Leu	Arg	Arg	380	385	390
Leu	Ile	Leu	Gln	Gly	Asn	Arg	Ile	Arg	Ser	Ile	Thr	Lys	Lys	Ala	395	400	405
Phe	Thr	Gly	Leu	Asp	Ala	Leu	Glu	His	Leu	Asp	Leu	Ser	Asp	Asn	410	415	420
Ala	Ile	Met	Ser	Leu	Gln	Gly	Asn	Ala	Phe	Ser	Gln	Met	Lys	Lys	425	430	435
Leu	Gln	Gln	Leu	His	Leu	Asn	Thr	Ser	Ser	Leu	Leu	Cys	Asp	Cys	440	445	450
Gln	Leu	Lys	Trp	Leu	Pro	Gln	Trp	Val	Ala	Glu	Asn	Asn	Phe	Gln	455	460	465
Ser	Phe	Val	Asn	Ala	Ser	Cys	Ala	His	Pro	Gln	Leu	Leu	Lys	Gly	470	475	480
Arg	Ser	Ile	Phe	Ala	Val	Ser	Pro	Asp	Gly	Phe	Val	Cys	Asp	Asp	485	490	495
Phe	Pro	Lys	Pro	Gln	Ile	Thr	Val	Gln	Pro	Glu	Thr	Gln	Ser	Ala	500	505	510
Ile	Lys	Gly	Ser	Asn	Leu	Ser	Phe	Ile	Cys	Ser	Ala	Ala	Ser	Ser	515	520	525

P1618P2C2.txt

Ser	Asp	Ser	Pro	Met	Thr	Phe	Ala	Trp	Lys	Lys	Asp	Asn	Glu	Leu
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Leu	His	Asp	Ala	Glu	Met	Glu	Asn	Tyr	Ala	His	Leu	Arg	Ala	Gln
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Gly	Gly	Glu	Val	Met	Glu	Tyr	Thr	Thr	Ile	Leu	Arg	Leu	Arg	Glu
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Val	Glu	Phe	Ala	Ser	Glu	Gly	Lys	Tyr	Gln	Cys	Val	Ile	Ser	Asn
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His	Phe	Gly	Ser	Ser	Tyr	Ser	Val	Lys	Ala	Lys	Leu	Thr	Val	Asn
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Met	Leu	Pro	Ser	Phe	Thr	Lys	Thr	Pro	Met	Asp	Leu	Thr	Ile	Arg
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Ala	Gly	Ala	Met	Ala	Arg	Leu	Glu	Cys	Ala	Ala	Val	Gly	His	Pro
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Phe	Phe	Ile	Val	Asp	Val	Lys	Ile	Glu	Asp	Ile	Gly	Val	Tyr	Ser
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Cys	Thr	Ala	Gln	Asn	Ser	Ala	Gly	Ser	Ile	Ser	Ala	Asn	Ala	Thr
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Leu	Thr	Val	Leu	Glu	Thr	Pro	Ser	Phe	Leu	Arg	Pro	Leu	Leu	Asp
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Arg	Thr	Val	Thr	Lys	Gly	Glu	Thr	Ala	Val	Leu	Gln	Cys	Ile	Ala
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Gly	Gly	Ser	Pro	Pro	Pro	Lys	Leu	Asn	Trp	Thr	Lys	Asp	Asp	Ser
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Pro	Leu	Val	Val	Thr	Glu	Arg	His	Phe	Phe	Ala	Ala	Gly	Asn	Gln
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Leu	Leu	Ile	Ile	Val	Asp	Ser	Asp	Val	Ser	Asp	Ala	Gly	Lys	Tyr
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Thr	Cys	Glu	Met	Ser	Asn	Thr	Leu	Gly	Thr	Glu	Arg	Gly	Asn	Val
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Thr	Ala	Pro	Ser	Leu	Asp	Asp	Asp	Gly	Trp	Ala	Thr	Val	Gly	Val
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Val	Ile	Ile	Ala	Val	Val	Cys	Cys	Val	Val	Gly	Thr	Ser	Leu	Val
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Trp	Val	Val	Ile	Ile	Tyr	His	Thr	Arg	Arg	Arg	Asn	Glu	Asp	Cys
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Ser Tyr Leu Ser Ser Gln Gly Thr Leu Ala Asp Arg Gln Asp Gly  
860 865 870

Tyr Val Ser Ser Glu Ser Gly Ser His His Gln Phe Val Thr Ser  
875 880 885

Ser Gly Ala Gly Phe Phe Leu Pro Gln His Asp Ser Ser Gly Thr  
890 895 900

Cys His Ile Asp Asn Ser Ser Glu Ala Asp Val Glu Ala Ala Thr  
905 910 915

Asp Leu Phe Leu Cys Pro Phe Leu Gly Ser Thr Gly Pro Met Tyr  
920 925 930

Leu Lys Gly Asn Val Tyr Gly Ser Asp Pro Phe Glu Thr Tyr His  
935 940 945

Thr Gly Cys Ser Pro Asp Pro Arg Thr Val Leu Met Asp His Tyr  
950 955 960

Glu Pro Ser Tyr Ile Lys Lys Lys Glu Cys Tyr Pro Cys Ser His  
965 970 975

Pro Ser Glu Glu Ser Cys Glu Arg Ser Phe Ser Asn Ile Ser Trp  
980 985 990

Pro Ser His Val Arg Lys Leu Leu Asn Thr Ser Tyr Ser His Asn  
995 1000 1005

Glu Gly Pro Gly Met Lys Asn Leu Cys Leu Asn Lys Ser Ser Leu  
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Ser Phe Met Gly Thr Phe Gly Lys Ala Leu Arg Arg Pro His Leu  
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Ala Phe Tyr Leu Lys Ala His Ser Ser Pro Asp Leu Asp Ser Gly  
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<211> 24

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<220>

<223> Synthetic Oligonucleotide Probe

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 Page 198

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 125 130 135  
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P1618P2C2.txt

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Pro	Pro	Pro	Leu	Pro	Thr	Glu	Leu	Arg	Thr	Pro	Leu	Pro	Pro	Thr
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Thr	Pro	Glu	Arg	Pro	Thr	Thr	Gly	Leu	Thr	Thr	Ile	Ala	Pro	Ala
				350					355					360
Ala	Ser	Thr	Pro	Pro	Gly	Gly	Ile	Thr	Val	Asp	Asn	Arg	Val	Gln
				365					370					375
Thr	Asp	Pro	Gln	Lys	Pro	Arg	Gly	Asp	Val	Phe	Ser	Val	Leu	Val
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His	Ser	Cys	Asn	Phe	Asp	His	Gly	Leu	Cys	Gly	Trp	Ile	Arg	Glu
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Lys	Asp	Asn	Asp	Leu	His	Trp	Glu	Pro	Ile	Arg	Asp	Pro	Ala	Gly
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Gly	Gln	Tyr	Leu	Thr	Val	Ser	Ala	Ala	Lys	Ala	Pro	Gly	Gly	Lys
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Ala	Ala	Arg	Leu	Val	Leu	Pro	Leu	Gly	Arg	Leu	Met	His	Ser	Gly
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Asp	Leu	Cys	Leu	Ser	Phe	Arg	His	Lys	Val	Thr	Gly	Leu	His	Ser
				455					460					465
Gly	Thr	Leu	Gln	Val	Phe	Val	Arg	Lys	His	Gly	Ala	His	Gly	Ala
				470					475					480
Ala	Leu	Trp	Gly	Arg	Asn	Gly	Gly	His	Gly	Trp	Arg	Gln	Thr	Gln
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 <213> Homo Sapien

<400> 320

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His	Thr	Pro	Ala	Ser	Asp	Ile	Gln	Ile	Ile	Trp	Leu	Phe	Glu	Arg	50	55	60	
Pro	His	Thr	Met	Pro	Lys	Tyr	Leu	Leu	Gly	Ser	Val	Asn	Lys	Ser	65	70	75	
Val	Val	Pro	Asp	Leu	Glu	Tyr	Gln	His	Lys	Phe	Thr	Met	Met	Pro	80	85	90	
Pro	Asn	Ala	Ser	Leu	Leu	Ile	Asn	Pro	Leu	Gln	Phe	Pro	Asp	Glu	95	100	105	
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Ser	Ala	Ser	Gln	Lys	Ile	Gln	Val	Thr	Val	Asp	Asp	Pro	Val	Thr	125	130	135	
Lys	Pro	Val	Val	Gln	Ile	His	Pro	Pro	Ser	Gly	Ala	Val	Glu	Tyr	140	145	150	
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Pro	Val	Thr	Lys	Glu	Asp	Ile	Gly	Asn	Tyr	Ser	Cys	Leu	Val	Arg	200	205	210	
Asn	Pro	Val	Ser	Glu	Met	Glu	Ser	Asp	Ile	Ile	Met	Pro	Ile	Ile	215	220	225	
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Lys	Val	Gly	Glu	Val	Phe	Thr	Val	Asp	Leu	Gly	Glu	Ala	Ile	Leu	245	250	255	
Phe	Asp	Cys	Ser	Ala	Asp	Ser	His	Pro	Pro	Asn	Thr	Tyr	Ser	Trp	260	265	270	
Ile	Arg	Arg	Thr	Asp	Asn	Thr	Thr	Tyr	Ile	Ile	Lys	His	Gly	Pro	275	280	285	
Arg	Leu	Glu	Val	Ala	Ser	Glu	Lys	Val	Ala	Gln	Lys	Thr	Met	Asp				

290

295

300

Tyr Val Cys Cys Ala Tyr Asn Asn Ile Thr Gly Arg Gln Asp Glu  
 305 310 315  
 Thr His Phe Thr Val Ile Ile Thr Ser Val Gly Leu Glu Lys Leu  
 320 325 330  
 Ala Gln Lys Gly Lys Ser Leu Ser Pro Leu Ala Ser Ile Thr Gly  
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 365 370 375  
 Arg Pro Glu Thr Glu Tyr Arg Lys Ala Gln Thr Phe Ser Gly His  
 380 385 390  
 Glu Asp Ala Leu Asp Asp Phe Gly Ile Tyr Glu Phe Val Ala Phe  
 395 400 405  
 Pro Asp Val Ser Gly Val Ser Arg Ile Pro Ser Arg Ser Val Pro  
 410 415 420  
 Ala Ser Asp Cys Val Ser Gly Gln Asp Leu His Ser Thr Val Tyr  
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&lt;211&gt; 25

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&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 321

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&lt;210&gt; 322

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 322

cactgacagg gttcctcacc cagg 24

&lt;210&gt; 323

&lt;211&gt; 45

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Synthetic Oligonucleotide Probe

&lt;400&gt; 323

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<210> 324

<211> 2397

<212> DNA

<213> Homo Sapien

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 <212> PRT  
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 35 40 45

Asp Trp Met Ile Glu Phe Tyr Ala Pro Trp Cys Pro Ala Cys Gln  
 50 55 60

Asn Leu Gln Pro Glu Trp Glu Ser Phe Ala Glu Trp Gly Glu Asp  
 65 70 75

Leu Glu Val Asn Ile Ala Lys Val Asp Val Thr Glu Gln Pro Gly  
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P1618P2C2.txt

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110	115	120
Lys Asp Phe Ile Asn Phe Ile Ser Asp	Lys Glu Trp Lys Ser Ile	
125	130	135
Glu Pro Val Ser Ser Trp Phe Gly Pro	Gly Ser Val Leu Met Ser	
140	145	150
Ser Met Ser Ala Leu Phe Gln Leu Ser	Met Trp Ile Arg Thr Cys	
155	160	165
His Asn Tyr Phe Ile Glu Asp Leu Gly	Leu Pro Val Trp Gly Ser	
170	175	180
Tyr Thr Val Phe Ala Leu Ala Thr Leu	Phe Ser Gly Leu Leu Leu	
185	190	195
Gly Leu Cys Met Ile Phe Val Ala Asp	Cys Leu Cys Pro Ser Lys	
200	205	210
Arg Arg Arg Pro Gln Pro Tyr Pro Tyr	Pro Ser Lys Lys Leu Leu	
215	220	225
Ser Glu Ser Ala Gln Pro Leu Lys Lys	Val Glu Glu Glu Gln Glu	
230	235	240
Ala Asp Glu Glu Asp Val Ser Glu Glu	Glu Ala Glu Ser Lys Glu	
245	250	255
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<400> 327

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 <212> PRT  
 <213> Homo Sapien

<400> 332

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Thr	Asp	Leu	Ile	Tyr	Ala	Glu	Lys	Glu	Leu	Val	Gln	Ser	Leu	Lys	35	40	45	
Glu	Tyr	Ile	Leu	Val	Glu	Glu	Ala	Lys	Leu	Ser	Lys	Ile	Lys	Ser	50	55	60	
Trp	Ala	Asn	Lys	Met	Glu	Ala	Leu	Thr	Ser	Lys	Ser	Ala	Ala	Asp	65	70	75	
Ala	Glu	Gly	Tyr	Leu	Ala	His	Pro	Val	Asn	Ala	Tyr	Lys	Leu	Val	80	85	90	
Lys	Arg	Leu	Asn	Thr	Asp	Trp	Pro	Ala	Leu	Glu	Asp	Leu	Val	Leu	95	100	105	
Gln	Asp	Ser	Ala	Ala	Gly	Phe	Ile	Ala	Asn	Leu	Ser	Val	Gln	Arg	110	115	120	
Gln	Phe	Phe	Pro	Thr	Asp	Glu	Asp	Glu	Ile	Gly	Ala	Ala	Lys	Ala	125	130	135	
Leu	Met	Arg	Leu	Gln	Asp	Thr	Tyr	Arg	Leu	Asp	Pro	Gly	Thr	Ile	140	145	150	
Ser	Arg	Gly	Glu	Leu	Pro	Gly	Thr	Lys	Tyr	Gln	Ala	Met	Leu	Ser	155	160	165	
Val	Asp	Asp	Cys	Phe	Gly	Met	Gly	Arg	Ser	Ala	Tyr	Asn	Glu	Gly	170	175	180	
Asp	Tyr	Tyr	His	Thr	Val	Leu	Trp	Met	Glu	Gln	Val	Leu	Lys	Gln	185	190	195	
Leu	Asp	Ala	Gly	Glu	Glu	Ala	Thr	Thr	Thr	Lys	Ser	Gln	Val	Leu	200	205	210	
Asp	Tyr	Leu	Ser	Tyr	Ala	Val	Phe	Gln	Leu	Gly	Asp	Leu	His	Arg	215	220	225	
Ala	Leu	Glu	Leu	Thr	Arg	Arg	Leu	Leu	Ser	Leu	Asp	Pro	Ser	His	230	235	240	
Glu	Arg	Ala	Gly	Gly	Asn	Leu	Arg	Tyr	Phe	Glu	Gln	Leu	Leu	Glu	245	250	255	
Glu	Glu	Arg	Glu	Lys	Thr	Leu	Thr	Asn	Gln	Thr	Glu	Ala	Glu	Leu	260	265	270	
Ala	Thr	Pro	Glu	Gly	Ile	Tyr	Glu	Arg	Pro	Val	Asp	Tyr	Leu	Pro	275	280	285	

P1618P2C2.txt

Glu Arg Asp Val	Tyr	Glu Ser Leu Cys	Arg	Gly Glu Gly Val	Lys
	290		295		300
Leu Thr Pro Arg	Arg	Gln Lys Arg Leu	Phe	Cys Arg Tyr His	His
	305		310		315
Gly Asn Arg Ala	Pro	Gln Leu Leu Ile	Ala	Pro Phe Lys Glu	Glu
	320		325		330
Asp Glu Trp Asp	Ser	Pro His Ile Val	Arg	Tyr Tyr Asp Val	Met
	335		340		345
Ser Asp Glu Glu	Ile	Glu Arg Ile Lys	Glu	Ile Ala Lys Pro	Lys
	350		355		360
Leu Ala Arg Ala	Thr	Val Arg Asp Pro	Lys	Thr Gly Val Leu	Thr
	365		370		375
Val Ala Ser Tyr	Arg	Val Ser Lys Ser	Ser	Trp Leu Glu Glu	Asp
	380		385		390
Asp Asp Pro Val	Val	Ala Arg Val Asn	Arg	Arg Met Gln His	Ile
	395		400		405
Thr Gly Leu Thr	Val	Lys Thr Ala Glu	Leu	Leu Gln Val Ala	Asn
	410		415		420
Tyr Gly Val Gly	Gly	Gln Tyr Glu Pro	His	Phe Asp Phe Ser	Arg
	425		430		435
Arg Pro Phe Asp	Ser	Gly Leu Lys Thr	Glu	Gly Asn Arg Leu	Ala
	440		445		450
Thr Phe Leu Asn	Tyr	Met Ser Asp Val	Glu	Ala Gly Gly Ala	Thr
	455		460		465
Val Phe Pro Asp	Leu	Gly Ala Ala Ile	Trp	Pro Lys Lys Gly	Thr
	470		475		480
Ala Val Phe Trp	Tyr	Asn Leu Leu Arg	Ser	Gly Glu Gly Asp	Tyr
	485		490		495
Arg Thr Arg His	Ala	Ala Cys Pro Val	Leu	Val Gly Cys Lys	Trp
	500		505		510
Val Ser Asn Lys	Trp	Phe His Glu Arg	Gly	Gln Glu Phe Leu	Arg
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Pro Cys Gly Ser	Thr	Glu Val Asp			
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<210> 333

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 333

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<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 334
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<210> 335
<211> 19
<212> DNA
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<220>
<223> Synthetic Oligonucleotide Probe

<400> 335
  ggtctcaaga actcctgtc 19

<210> 336
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 336
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<210> 337
<211> 45
<212> DNA
<213> Artificial Sequence

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  gggcacatga ctgacctgat ttatgcagag aaagagctgg tgcag 45

<210> 338
<211> 2789
<212> DNA
<213> Homo Sapien

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  tcccagtggt agtgaaattg attgtttcat ttattaccgt tttggctggg 100
  ggtagtttcc gacaccttca cagttgaaga gcaggcagaa ggagttgtga 150
  agacaggaca atcttcttgg ggatgctggg cctggaagcc agcgggcctt 200
  gctctgtctt tggcctcatt gaccccaggt tctctgggta aaactgaaag 250
  cctactactg gcctgggtgcc catcaatcca ttgatccttg aggctgtgcc 300
  cctggggcac ccacctggca gggcctacca ccatgcgact gagctccctg 350

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P1618P2C2.txt

ttggctctgc tgcggccagc gcttcccctc atcttagggc tgtctctggg 400  
 gtgcagcctg agcctcctgc gggtttcctg gatccagggg gagggagaag 450  
 atccctgtgt cgaggctgta ggggagcgag gagggccaca gaatccagat 500  
 tcgagagctc ggctagacca aagtgatgaa gacttcaaac cccggattgt 550  
 cccctactac agggacccca acaagcccta caagaagggtg ctcaggactc 600  
 ggtacatcca gacagagctg ggctcccgtg agcgggttgct ggtggctgtc 650  
 ctgacctccc gagctacact gtccactttg gccgtggctg tgaaccgtac 700  
 ggtggcccat cacttccctc ggttactcta cttcactggg cagcgggggg 750  
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 cgactacgac tggttcttca tcatgcagga tgacacatat gtgcaggccc 900  
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 ggccacatct ggatggctgc cgaggagaca ttctcagtgc ccgtcctgac 1100  
 gagtggcttg gacgctgcct cattgactct ctgggcgtcg gctgtgtctc 1150  
 acagcaccag ggcgagcagt atcgctcatt tgaactggcc aaaaataggg 1200  
 accctgagaa ggaagggagc tcggctttcc tgagtgcctt cgccgtgcac 1250  
 cctgtctccg aaggtaccct catgtaccgg ctccacaaac gcttcagcgc 1300  
 tctggagttg gagcgggctt acagtgaat agaacaactg caggctcaga 1350  
 tccggaacct gaccgtgctg acccccgaag gggaggcagg gctgagctgg 1400  
 cccgttgggc tccctgctcc ttccacacca cactctcgtt ttgaggtgct 1450  
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 ctccaagtg ccactacag ggggctagca gggcgacgt gggatgatgcg 1550  
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 cttccagaag cagcgactgc tcaacggcta tcggcgcttc gaccagcac 1650  
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 ccgggtggaa atcctaccta tgccctatgt cactgaggcc acccgagtgc 1800  
 agctggtgct gccactcctg gtggctgaag ctgctgcagc cccggctttc 1850  
 ctcgaggcgt ttgcagccaa tgtcctggag ccacgagaac atgcattgct 1900

P1618P2C2.txt

caccctgttg ctggtctacg ggccacgaga aggtggccgt ggagctccag 1950  
 acccatttct tgggggtgaag gctgcagcag cggagttaga gcgacggtac 2000  
 cctgggacga ggctggcctg gctcgctgtg cgagcagagg ccccttccca 2050  
 ggtgcgactc atggacgtgg tctcgaagaa gcaccctgtg gacactctct 2100  
 tcttccttac caccgtgtgg acaaggcctg ggcccgaagt cctcaaccgc 2150  
 tgtcgcatga atgccatctc tggctggcag gccttctttc cagtccattt 2200  
 ccaggagttc aatcctgccc tgtcaccaca gagatcaccc ccaggggccc 2250  
 cgggggcttg ccctgacccc cctcccccctc ctggtgctga cccctcccgg 2300  
 ggggctccta taggggggag atttgaccgg caggcttctg cggagggctg 2350  
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 gctggtgcag aagttctccc tgcgagactg cagcccacgg ctcaagtgaag 2550  
 aactctacca ccgctgccgc ctcaagaacc tggaggggct agggggccgt 2600  
 gccagctgg ctatggctct ctttgagcag gacaggcca atagcactta 2650  
 gcccgcctgg gggccctaac ctattacct ttcctttgtc tgcctcagcc 2700  
 ccaggaaggg caaggcaaga tgggtggacag atagagaatt gttgctgtat 2750  
 tttttaaata tgaaaatggt attaaacatg tcttctgcc 2789

<210> 339

<211> 772

<212> PRT

<213> Homo Sapien

<400> 339

Met Arg Leu Ser Ser Leu Leu Ala Leu Leu Arg Pro Ala Leu Pro  
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Leu Ile Leu Gly Leu Ser Leu Gly Cys Ser Leu Ser Leu Leu Arg  
 20 25 30

Val Ser Trp Ile Gln Gly Glu Gly Glu Asp Pro Cys Val Glu Ala  
 35 40 45

Val Gly Glu Arg Gly Gly Pro Gln Asn Pro Asp Ser Arg Ala Arg  
 50 55 60

Leu Asp Gln Ser Asp Glu Asp Phe Lys Pro Arg Ile Val Pro Tyr  
 65 70 75

Tyr Arg Asp Pro Asn Lys Pro Tyr Lys Lys Val Leu Arg Thr Arg  
 80 85 90

Tyr Ile Gln Thr Glu Leu Gly Ser Arg Glu Arg Leu Leu Val Ala  
 95 100 105

## P1618P2C2.txt

Val Leu Thr Ser Arg Ala Thr Leu Ser Thr Leu Ala Val Ala Val  
 110 115 120  
 Asn Arg Thr Val Ala His His Phe Pro Arg Leu Leu Tyr Phe Thr  
 125 130 135  
 Gly Gln Arg Gly Ala Arg Ala Pro Ala Gly Met Gln Val Val Ser  
 140 145 150  
 His Gly Asp Glu Arg Pro Ala Trp Leu Met Ser Glu Thr Leu Arg  
 155 160 165  
 His Leu His Thr His Phe Gly Ala Asp Tyr Asp Trp Phe Phe Ile  
 170 175 180  
 Met Gln Asp Asp Thr Tyr Val Gln Ala Pro Arg Leu Ala Ala Leu  
 185 190 195  
 Ala Gly His Leu Ser Ile Asn Gln Asp Leu Tyr Leu Gly Arg Ala  
 200 205 210  
 Glu Glu Phe Ile Gly Ala Gly Glu Gln Ala Arg Tyr Cys His Gly  
 215 220 225  
 Gly Phe Gly Tyr Leu Leu Ser Arg Ser Leu Leu Leu Arg Leu Arg  
 230 235 240  
 Pro His Leu Asp Gly Cys Arg Gly Asp Ile Leu Ser Ala Arg Pro  
 245 250 255  
 Asp Glu Trp Leu Gly Arg Cys Leu Ile Asp Ser Leu Gly Val Gly  
 260 265 270  
 Cys Val Ser Gln His Gln Gly Gln Gln Tyr Arg Ser Phe Glu Leu  
 275 280 285  
 Ala Lys Asn Arg Asp Pro Glu Lys Glu Gly Ser Ser Ala Phe Leu  
 290 295 300  
 Ser Ala Phe Ala Val His Pro Val Ser Glu Gly Thr Leu Met Tyr  
 305 310 315  
 Arg Leu His Lys Arg Phe Ser Ala Leu Glu Leu Glu Arg Ala Tyr  
 320 325 330  
 Ser Glu Ile Glu Gln Leu Gln Ala Gln Ile Arg Asn Leu Thr Val  
 335 340 345  
 Leu Thr Pro Glu Gly Glu Ala Gly Leu Ser Trp Pro Val Gly Leu  
 350 355 360  
 Pro Ala Pro Phe Thr Pro His Ser Arg Phe Glu Val Leu Gly Trp  
 365 370 375  
 Asp Tyr Phe Thr Glu Gln His Thr Phe Ser Cys Ala Asp Gly Ala  
 380 385 390  
 Pro Lys Cys Pro Leu Gln Gly Ala Ser Arg Ala Asp Val Gly Asp  
 395 400 405  
 Ala Leu Glu Thr Ala Leu Glu Gln Leu Asn Arg Arg Tyr Gln Pro  
 410 415 420

## P1618P2C2.txt

Arg Leu Arg Phe Gln Lys Gln Arg Leu Leu Asn Gly Tyr Arg Arg  
 425 430 435  
 Phe Asp Pro Ala Arg Gly Met Glu Tyr Thr Leu Asp Leu Leu Leu  
 440 445 450  
 Glu Cys Val Thr Gln Arg Gly His Arg Arg Ala Leu Ala Arg Arg  
 455 460 465  
 Val Ser Leu Leu Arg Pro Leu Ser Arg Val Glu Ile Leu Pro Met  
 470 475 480  
 Pro Tyr Val Thr Glu Ala Thr Arg Val Gln Leu Val Leu Pro Leu  
 485 490 495  
 Leu Val Ala Glu Ala Ala Ala Ala Pro Ala Phe Leu Glu Ala Phe  
 500 505 510  
 Ala Ala Asn Val Leu Glu Pro Arg Glu His Ala Leu Leu Thr Leu  
 515 520 525  
 Leu Leu Val Tyr Gly Pro Arg Glu Gly Gly Arg Gly Ala Pro Asp  
 530 535 540  
 Pro Phe Leu Gly Val Lys Ala Ala Ala Ala Glu Leu Glu Arg Arg  
 545 550 555  
 Tyr Pro Gly Thr Arg Leu Ala Trp Leu Ala Val Arg Ala Glu Ala  
 560 565 570  
 Pro Ser Gln Val Arg Leu Met Asp Val Val Ser Lys Lys His Pro  
 575 580 585  
 Val Asp Thr Leu Phe Phe Leu Thr Thr Val Trp Thr Arg Pro Gly  
 590 595 600  
 Pro Glu Val Leu Asn Arg Cys Arg Met Asn Ala Ile Ser Gly Trp  
 605 610 615  
 Gln Ala Phe Phe Pro Val His Phe Gln Glu Phe Asn Pro Ala Leu  
 620 625 630  
 Ser Pro Gln Arg Ser Pro Pro Gly Pro Pro Gly Ala Gly Pro Asp  
 635 640 645  
 Pro Pro Ser Pro Pro Gly Ala Asp Pro Ser Arg Gly Ala Pro Ile  
 650 655 660  
 Gly Gly Arg Phe Asp Arg Gln Ala Ser Ala Glu Gly Cys Phe Tyr  
 665 670 675  
 Asn Ala Asp Tyr Leu Ala Ala Arg Ala Arg Leu Ala Gly Glu Leu  
 680 685 690  
 Ala Gly Gln Glu Glu Glu Glu Ala Leu Glu Gly Leu Glu Val Met  
 695 700 705  
 Asp Val Phe Leu Arg Phe Ser Gly Leu His Leu Phe Arg Ala Val  
 710 715 720  
 Glu Pro Gly Leu Val Gln Lys Phe Ser Leu Arg Asp Cys Ser Pro  
 725 730 735



P1618P2C2.txt

Arg Leu Ser Glu Glu Leu Tyr His Arg Cys Arg Leu Ser Asn Leu  
740 745 750

Glu Gly Leu Gly Gly Arg Ala Gln Leu Ala Met Ala Leu Phe Glu  
755 760 765

Gln Glu Gln Ala Asn Ser Thr  
770

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<211> 1572

<212> DNA

<213> Homo Sapien

<400> 340

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ctttttgaag ggtgtgatgc ttggaagcat tttctgtgct ttgatcacta 150  
tgctaggaca cattaggatt ggtcatggaa atagaatgca ccaccatgag 200  
catcatcacc tacaagctcc taacaaagaa gatatcttga aaatttcaga 250  
ggatgagcgc atggagctca gtaagagctt tcgagtatac tgtattatcc 300  
ttgtaaaacc caaagatgtg agtctttggg ctgcagtaaa ggagacttgg 350  
accaaact gtgacaaagc agagttcttc agttctgaaa atgttaaagt 400  
gtttgagtca attaatatgg acacaaatga catgtggtta atgatgagaa 450  
aagcttaca atacgccttt gataagtata gagaccaata caactgggtc 500  
ttccttgac gccccactac gtttgctatc attgaaaacc taaagtattt 550  
tttgtaaaa aaggatccat cacagccttt ctatctaggc cacactataa 600  
aatctggaga ctttgaatat gtgggtatgg aaggaggaat tgtcttaagt 650  
gtagaatcaa tgaaaagact taacagcctt ctcaatatcc cagaaaagt 700  
tcctgaacag ggagggatga tttggaagat atctgaagat aaacagctag 750  
cagtttgcct gaaatatgct ggagtatttg cagaaaatgc agaagatgct 800  
gatggaaaag atgtatttaa taccaaact gttgggcttt ctattaaaga 850  
ggcaatgact taccaccca accaggtagt agaaggctgt tgttcagata 900  
tggctgttac ttttaatgga ctgactcaa atcagatgca tgtgatgatg 950  
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agcgtgaata tgatctttgt ataggacgtg tgttgtcatt attttagta 1100  
gtaactacat atccaatata gctgtatgtt tctttttctt ttctaatttg 1150  
gtggcactgg tataaccaca cattaaagtc agtagtacat ttttaaatga 1200

gggtggtttt tttctttaaa acacatgaac attgtaaatg tggttgaaag 1250  
 aagtgtttta agaataataa ttttgcaaat aaactattaa taaatattat 1300  
 atgtgataaa ttctaaatta tgaacattag aaatctgtgg ggcacatatt 1350  
 tttgctgatt gggttaaaaaa ttttaacagg tcttttagcgt tctaagatat 1400  
 gcaaatagata tctctagttg tgaatttggtg attaaagtaa aacttttagc 1450  
 tgtgtgttcc ctttacttct aatactgatt tatgttctaa gcctcccaa 1500  
 gttccaatgg atttgccttc tcaaaatgta caactaagca actaaagaaa 1550  
 attaaagtga aagttgaaaa at 1572

&lt;210&gt; 341

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo Sapien

&lt;400&gt; 341

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Ser	Ile	Phe	Cys	Ala	Leu	Ile	Thr	Met	Leu	Gly	His	Ile	Arg	Ile
				20					25					30
Gly	His	Gly	Asn	Arg	Met	His	His	His	Glu	His	His	His	Leu	Gln
				35					40					45
Ala	Pro	Asn	Lys	Glu	Asp	Ile	Leu	Lys	Ile	Ser	Glu	Asp	Glu	Arg
				50					55					60
Met	Glu	Leu	Ser	Lys	Ser	Phe	Arg	Val	Tyr	Cys	Ile	Ile	Leu	Val
				65					70					75
Lys	Pro	Lys	Asp	Val	Ser	Leu	Trp	Ala	Ala	Val	Lys	Glu	Thr	Trp
				80					85					90
Thr	Lys	His	Cys	Asp	Lys	Ala	Glu	Phe	Phe	Ser	Ser	Glu	Asn	Val
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Lys	Val	Phe	Glu	Ser	Ile	Asn	Met	Asp	Thr	Asn	Asp	Met	Trp	Leu
				110					115					120
Met	Met	Arg	Lys	Ala	Tyr	Lys	Tyr	Ala	Phe	Asp	Lys	Tyr	Arg	Asp
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Gln	Tyr	Asn	Trp	Phe	Phe	Leu	Ala	Arg	Pro	Thr	Thr	Phe	Ala	Ile
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Ile	Glu	Asn	Leu	Lys	Tyr	Phe	Leu	Leu	Lys	Lys	Asp	Pro	Ser	Gln
				155					160					165
Pro	Phe	Tyr	Leu	Gly	His	Thr	Ile	Lys	Ser	Gly	Asp	Leu	Glu	Tyr
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Val	Gly	Met	Glu	Gly	Gly	Ile	Val	Leu	Ser	Val	Glu	Ser	Met	Lys
				185					190					195
Arg	Leu	Asn	Ser	Leu	Leu	Asn	Ile	Pro	Glu	Lys	Cys	Pro	Glu	Gln
				200					205					210

P1618P2C2.txt

Gly	Gly	Met	Ile	Trp	Lys	Ile	Ser	Glu	Asp	Lys	Gln	Leu	Ala	Val	215	220	225
Cys	Leu	Lys	Tyr	Ala	Gly	Val	Phe	Ala	Glu	Asn	Ala	Glu	Asp	Ala	230	235	240
Asp	Gly	Lys	Asp	Val	Phe	Asn	Thr	Lys	Ser	Val	Gly	Leu	Ser	Ile	245	250	255
Lys	Glu	Ala	Met	Thr	Tyr	His	Pro	Asn	Gln	Val	Val	Glu	Gly	Cys	260	265	270
Cys	Ser	Asp	Met	Ala	Val	Thr	Phe	Asn	Gly	Leu	Thr	Pro	Asn	Gln	275	280	285
Met	His	Val	Met	Met	Tyr	Gly	Val	Tyr	Arg	Leu	Arg	Ala	Phe	Gly	290	295	300
His	Ile	Phe	Asn	Asp	Ala	Leu	Val	Phe	Leu	Pro	Pro	Asn	Gly	Ser	305	310	315

Asp Asn Asp

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 <211> 23  
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<220>  
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<400> 342  
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<210> 343  
 <211> 18  
 <212> DNA  
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<220>  
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<400> 343  
 ctggttcttc cttgcacg 18

<210> 344  
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<400> 344  
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<210> 345  
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<220>
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<212> DNA
<213> Artificial Sequence

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<400> 347
ccctcatgta ccggctcc 18

<210> 348
<211> 48
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<212> DNA
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<210> 350
<211> 48
<212> DNA
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<210> 351
<211> 48

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<212> DNA  
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<210> 354  
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<212> DNA  
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<220>  
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<400> 355  
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<210> 356  
<211> 46  
<212> DNA  
<213> Artificial Sequence

<220>  
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<210> 357  
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 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic Oligonucleotide Probe

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<210> 358  
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 <212> DNA  
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<220>  
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<400> 358  
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<210> 359  
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 <212> DNA  
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<220>  
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<400> 359  
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<220>  
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35 40 45

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Glu Asn Phe Thr Glu Leu Ser Cys Tyr Asn Tyr Gly Ser Gly Ser  
65 70 75

Val Lys Asn Cys Cys Pro Leu Asn Trp Glu Tyr Phe Gln Ser Ser  
80 85 90

Cys Tyr Phe Phe Ser Thr Asp Thr Ile Ser Trp Ala Leu Ser Leu  
95 100 105

Lys Asn Cys Ser Ala Met Gly Ala His Leu Val Val Ile Asn Ser  
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Gln Glu Glu Gln Glu Phe Leu Ser Tyr Lys Lys Pro Lys Met Arg  
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140 145 150

Gln Trp Val Asp Gly Thr Pro Leu Thr Lys Ser Leu Ser Phe Trp  
155 160 165

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Tyr Phe Ile Asn Asn Lys Gln Asp Gly Glu Ser Tyr Lys Asn Pro
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Gly Lys Pro Asp Gly Val Asn Tyr Ile Arg Thr Asp Glu Glu Gly
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Asp Phe Arg His Lys Ser Ser Phe Val Ile

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1 5 10 15

Cys Xaa Asn